CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE NOVEMBER 1988

CLIFF SAYRE

1988 NITL Man of the Year

LOGISTICS CAREERS: A VISION OF THE FUTURE

MULTIMODAL JIT

RAIL EQUIPMENT INNOVATIONS

NOVEMBER 1988

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 87, NO. 11

COVER STORY

28 ENGINEERING EXCELLENCE

While past generations of traffic managers may not have appreciated the skills of this year's National Industrial Transportation League Man of the Year, today's distribution managers have only admiration for this engineer turned logistics executive who oversees the material flow of a $30 billion corporate giant.

FEATURES

36 LOGISTICS CAREERS: A VIEW OF THE FUTURE

Logistics is maturing as a discipline and is becoming a more stable and established part of the corporate framework. Yet it remains change-oriented.

46 A JIT SYSTEM THAT RUNS LIKE CLOCKWORK

Systematic pickups and dependable intermodal service combine to form flexible, yet consistent, material flows.

56 CASEBOOK: TRUCKING SERVICES

64 THE FUN IS BACK!

Following some lean years, business is booming again for rail car manufacturers. Here's what they're up to.

72 LEASING HELPS DRIVE MARKET EXPANSION

A leased truck fleet, featuring some odd equipment combinations, helps Litehouse Corp. penetrate new markets without destroying the corporate balance sheet.

78 LOGISTICS TOOLS: STAND UP FOR YOUR ROUTING RIGHTS!

In the logistics pipeline there is a constant struggle to control the freight. Here's a look at some of the games vendors and customers play with inbound freight.

DEPARTMENTS

4 EDITORIAL

13 LOGISTICS TRENDS

16 TRANSPORTATION REPORT

26 GLOBAL LOGISTICS REPORT

82 LAW & REGULATION

85 LITERATURE

86 JULY GUIDE ADDITIONS

88 INFO HUB

96 MANAGEMENT

Next Month:

Top Management Looks at Logistics

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

THERESA STELTZER – Senior Editor
(215) 964-4381

E.J. MULLER – Senior Editor (West Coast)
(415) 387-0275

ANNETTE FREEMAN – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
JAMES MARTIN (312) 864-8182
RICK ROSE (312) 852-0522
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 674-9433
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ROGER SCHREFFLER – Far East
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett Packard

STANLEY ROZYCKI
VP Transportation/Logistics
Federated Department Stores, Inc.

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1988. Subscription rate: U.S. and possessions, $45 per year. Canadian, $50. Foreign $70. Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in-Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

LOGISTICS CAREERS: A VIEW OF THE FUTURE

This year's CLM career patterns survey finds logistics maturing as a discipline and becoming a more established part of the corporate framework. Yet it remains change-oriented.

By James M. Masters, Associate Professor, and Bernard J. LaLonde, Mason Professor of Transportation & Logistics, Ohio State University

For the last 17 years, the Logistics Research Group at the Ohio State University has conducted an annual survey of the career patterns of senior logistics executives in major U.S. companies.

The purpose of this work is to establish baseline information about the status of the field of logistics as a profession; to gain an understanding of how the logistics function is integrated into the organizational structure of the firm; and to determine the specific responsibilities of the logistics executive in the typical firm. Recently, the survey has been broadened to gather logistics executives' attitudes and opinions about future trends in logistics practice.

Specifically, this year's survey sought to answer these questions:

- What is the demographic profile of the successful logistics executive?
- How are logistics functions structured, organized, and managed within the successful firm?
- What significant changes to traditional logistics practice are on the horizon, and how will the successful firm deal with them?

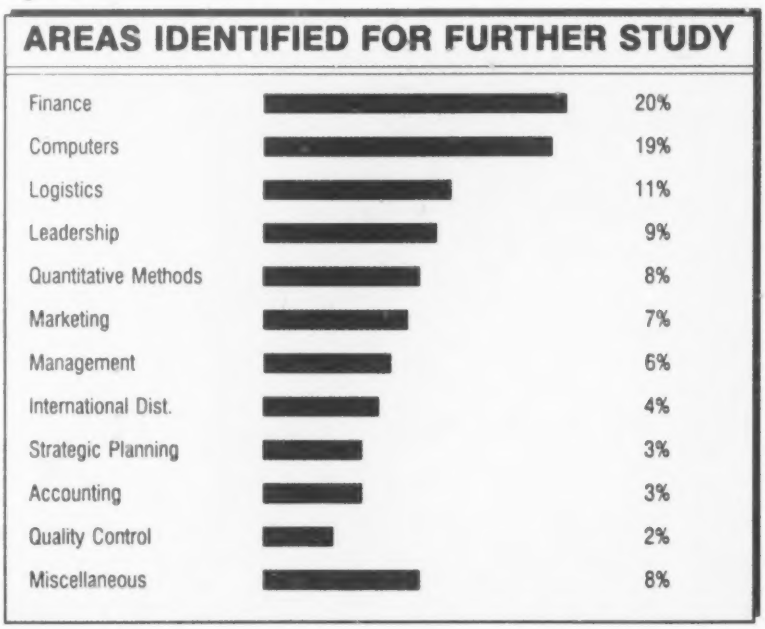
DEMOGRAPHICS

Respondents range in age from the mid-20s to the mid-60s. The typical survey respondent is 44 years old. Our average logistics executive has been in his or her current position for four years, has been with the company for 11 years, and has worked in logistics for 17 years. This pattern is repeated at all levels of responsibility from manager through vice president. These data point to the professional nature of the logistics career. An executive position in logistics is seldom a short-term, lateral career move for an individual whose expertise is in another area. Rather, the typical logistics executive has an extensive background in logistics and has worked his or her way up to a position of authority.

Respondents were also asked to identify topics they would study further if they could return to school for three months. The results, shown in Figure 1, are similar to those reported in recent years. *Finance* and *Computers* once again were dominant responses. It is worth noting that, in contrast to these technical subjects, *Leadership* was also high on the list. This area includes executives who want to polish skills in

continued

Figure 1



communication, presentation, motivation and negotiation.

Executives were asked to report their total annual cash compensation, including bonus. These results are portrayed in Figure 2 by job title. The statistics reported are median values for the highest third, middle third, and lowest third of each job category. Statistical analyses were performed to determine which factors might help to "predict" a respondent's salary level. Age, years in the position, etc., show no statistically significant relationship to compensation. Level of responsibility, as measured by the job titles of manager-director-vice-president, is the single most important predictor of compensation. The executive's budget responsibility and the firm's sales volume also correlate positively with compensation and help to predict the executive's salary level. A comparison of this year's compensation data to the figures reported in prior year studies is shown in Figure 3. Data from 1986 are not included because the sample of executives studied in that year was not comparable.

Figure 2

LOGISTICS EXECUTIVE COMPENSATION (median salary plus bonus)

JOB TITLE	HIGHEST THIRD	MIDDLE THIRD	LOWEST THIRD	ANNUAL RAISE
Manager	$ 80,000	$ 57,000	$41,000	6%
Director	95,000	75,000	60,000	7%
Vice President	177,000	122,000	85,000	8%

Figure 3

HISTORICAL COMPENSATION COMPARISON

Year	Manager	Director	Vice-President
1988	$57,000	$75,000	$122,000
1987	60,000	74,500	107,400
1986	–	–	–
1985	55,500	72,400	106,400
1984	54,800	70,800	93,900
1983	49,300	58,500	85,600
1982	48,000	59,200	82,200

Figure 4

LOCATION OF THE LOGISTICS FUNCTION IN THE ORGANIZATION

Department	Respondent	Superior	Next Higher Superior
Logistics	50%	18%	5%
Operations	16%	24%	7%
Corporate	10%	24%	56%
Division	10%	17%	20%
Marketing	4%	5%	2%
Production	3%	6%	5%
Other	7%	7%	4%

ORGANIZATION

Twenty percent of the respondents report that a logistics department exists in each division of the firm; 28 percent say that the logistics organization is a centralized staff. The dominant response, however, is that logistics functions are split; some are performed by divisional departments and some are performed by a central staff. This is the case in 41 percent of the firms.

In 50 percent of all cases, the survey respondent is assigned to a department or section which is named *Logistics* or *Distribution* (Figure 4). Sixteen percent work in an *Operations* department, and 10 percent are attached to a product division. Also shown here is that in 24 percent of all cases, the respondent's superior is assigned to an *Operations* department. In 56 percent of all cases, the respondent's next higher superior (the respondent's superior's superior) is located at the corporate level. Many variations of hierarchical structure were reported within this simple framework.

Respondents were asked whether they have direct responsibility and control over logistics decisions or whether their role is primarily advisory. Fifty-six percent replied that their job involves direct responsibility, while only five percent see their role as purely advisory. The remaining 39 percent report that the job includes direct responsibility over some logistics functions and advisory responsibility in others.

Forty-two percent of our respondents have manager titles, 34 percent are directors and 24 percent are vice presidents within their companies. In 55 percent of all cases, the respondent's next higher superior is the president or chairman.

In an attempt to gauge the maturity of the logistics organization, we

continued

asked in what year the firm first appointed a senior executive-level manager with a formal job title and responsibility in the distribution or logistics area. Since 1980, firms have established such a position at a rate of about seven percent per year. Twenty-eight percent report that their firm has not yet done so.

In an attempt to measure the scope of the logistics function, each respondent was presented with a list of traditional logistics activities (see Figure 5) and was asked to specify if the activity is considered to be a logistics function by the firm, if the respondent has direct responsibility over the activity, and how much time the respondent spends engaged in the activity. As the table shows, traditional logistics functions such as traffic management and warehousing are almost universally viewed as part of the logistics domain. On the other hand, only 36 percent of these logistics executives work on product planning, and only 30 percent are involved in demand forecasting. General management tasks, such as supervision and administration, consume 24 percent of most executives' work day, and fully 87 percent of the executives have other specialized duties that claim 25 percent of their time.

Survey respondents were asked to specify their total logistics budget responsibility, including both payroll and services. The average figure reported was $38 million, but these budgets vary greatly; 17 percent report budgets under $2 million, while another 17 percent control budgets in the range of $60 million to $600 million.

Figure 5

DIMENSIONS OF THE LOGISTICS FUNCTION

Dimension	Logistics Activity	Direct Responsibility	Time Spent
Traffic Management	98%	85%	17%
Warehousing	97%	83%	17%
Inventory Management	85%	70%	14%
International Distribution	77%	75%	9%
Plant & Warehouse	71%	67%	9%
Order Entry	68%	62%	11%
Packaging	56%	42%	5%
Procurement	52%	51%	9%
Product Planning	36%	31%	5%
Sales Forecasting	30%	31%	5%
General Management	82%	84%	24%
Other	87%	100%	25%

Figure 6

FACTORS WHICH WILL INFLUENCE THE DEVELOPMENT OF THE LOGISTICS FUNCTION IN THE NEXT DECADE

Factor	Response
Customer Service	15%
Cost Control	15%
EDI & Information Technology	9%
MIS & Computers	9%
Corporate Growth	8%
Management Recognition	6%
Inventory; JIT, DRP, MRP	6%
Management Performance	5%
Global Sourcing & Marketing	5%
Logistics Integration & Consol.	5%
Regulation	2%
All Others	14%

A VIEW OF THE FUTURE

How do logistics executives see the future of their industry shaping up? The survey first asked respondents to identify two major factors which would influence the growth of the corporate logistics function in the next decade. The answers to this question are summarized in Figure 6. Customer service is identified as a factor in 15 percent of the responses, while another 15 percent cite cost control. *Management Recognition* represents a group of respondents who feel that the future growth of the logistics function in their firm will depend upon their success in convincing senior management of the value of adopting an integrated approach to the management and control of logistics activities.

Management Performance represents a group of respondents who believe that growth of their corporate logistics function will be determined by their ability to demonstrate results in terms of cost, service and profitability. *Logistics Integration and Consolidation* is a category which includes respondents who feel that their logistics functions must be more tightly integrated with other functions such as marketing and production, or that logistics must incorporate "new" activities such as pur-

continued

chasing into its area of responsibility, or that growth will be determined by the ability to mesh with and absorb the logistics functions entering the firm through acquisition and merger.

Executives were then asked to estimate how their 1989 logistics budget would compare with their 1988 actual costs (Figure 7). The average estimate for total logistics costs is five percent growth over 1988 costs. Individual cost categories range from a 1.8 percent increase for rail costs to a 6.6 percent increase in public warehousing costs.

Finally, executives were asked to predict how the company's logistics practices would change from 1988 to 1990 to 1995 (Figure 8). Executives expect to see growth in the volume of raw materials acquired overseas. They expect to see more than twice as much inbound product flow under just-in-time (JIT) scheduling by 1995. Executives expect to see dramatic increases in inventory productivity, with inventory turns at centralized facilities climbing from eight times per year in 1988 to 12 times per year in 1995. Most executives say they will reduce the total number of carriers they use, with the average expected to fall from 30 in 1988 to 20 in 1995. Another trend is a shortening of order cycle times, with the mean expected to fall from 96 hours to 72 hours by 1995. Since transit times are not expected to be reduced, we can infer that the improvement in order cycle time will come from improved internal communications and information processing and not through improvements in the transportation process. The figures imply that the information processing and order handling segment of order cycle time will be cut in half by 1995.

Figure 7

A LOGISTICS BUDGET FORECAST FOR 1989

COST CATEGORY	PERCENTAGE CHANGE
Rail	1.8%
Motor LTL	5.7
Motor TL	4.9
Private Fleet	4.2
Private Warehouse	5.7
Public Warehouse	6.6
Fuel (Gasoline)	4.1
Fuel (Diesel)	4.9
Inventory Carrying Cost	2.0
Total Logistics	**5.0**

Figure 8

PROJECTED CHANGES IN LOGISTICS PRACTICE

Activity	1988	1990	1995
Raw materials sourced from off-shore suppliers (%)	14	20	17
Inbound product that is scheduled just-in-time (%)	18	45	31
Annual inventory turnover at central warehouse	8	12	10
Total number of transportation carriers used	30	20	20
Target order cycle time (hrs.)	96	72	96
Target transit time (hrs.)	48	48	48

CONCLUSIONS/IMPLICATIONS

Our findings and analysis lead us to three major conclusions:

1. Logistics is maturing as a professional discipline. Logistics executives are specialists who practice in a field where specialized knowledge and experience are essential to success. A collegiate business education has become a *de facto* entrance norm, and increasing numbers of executives with collegiate logistics education are becoming prominent in the field. Executives are rising to high positions in the corporate structure by following a logistics career path.

2. The logistics function is becoming structurally stable. Most firms have established logistics organizations which are recognized and accepted parts of the corporate structure. Budget authority and line responsibility have been established. Major concerns now include cost control, service performance and corporate growth. Technological innovations in logistics are anticipated and welcomed, but the logistics executive expects to cope with the future within the current organizational structure.

3. Logistics remains a change-oriented activity. The development and implementation of the logistics concept was a dramatic change for most firms. If logistics was at first a revolutionary concept, that revolution is now over; logistics has become part of the establishment. Nevertheless, executives are keenly aware of coming changes to logistics practice such as EDI, DRP, JIT and many other technological and managerial innovations. The question seems to be whether the logistics structures we have built can successfully adapt to and incorporate these innovations. The challenge to the senior logistics executive is to make it happen. ■

Single copies of this article are free. Input **555** *on the Reader Service Card.*

CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE JANUARY 1989

BEST AVAILABLE COPY

THE NOT-SO-NIFTY '90s

002528 010 008
SUSAN GARNER
CONGRESSIONAL INF SERVIC
4520 EAST WEST HIGHWAY
BETHESDA MD 20814

BUYING INTO INBOUND

PROFITS OUT OF THIN AIR

WHEN TO PAY EARLY

JANUARY 1989

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 1

COVER STORY

30 THE NOT-SO-NIFTY '90s

If you thought logistics in the next decade would be a happy world of technical wizardry and enlightened management, think again. Takeovers threaten to undermine logistics' progress. Expansion of international business is stymied by understaffing and inexperience. At home, our transportation infrastructure is crumbling. Welcome to the gray '90s.

FEATURES

38 WHAT TO EXPECT FROM A BUSH ADMINISTRATION

And other insights as to what lies ahead for transportation in the 1990s. Here are the educated guesses of some industry veterans.

46 THE PURCHASING MANAGER OF THE 1990s

The anticipated integration between purchasing and logistics has not materialized. If this relationship is as critical to corporate success as everyone believes it is, what do the 1990s hold?

52 IT'S TOUGH TO BE ON THE RECEIVING END

Our readers are sold on the value of inbound freight management. Now if they could only get other key players to buy in.

58 CASEBOOK: AIRFREIGHT SERVICES

64 ARE YOU PREPARED TO PERFORM?

The pay-for-performance trend is irreversible, but logistics has taken mostly backward steps to date.

67 LOGISTICS TOOLS: HOW TO BETTER MANAGE YOUR CASH FLOW

The terms under which you choose to pay your freight bills can make you look really good – or really bad.

DEPARTMENTS

4 EDITORIAL

13 LOGISTICS TRENDS

16 TRANSPORTATION REPORT

26 GLOBAL LOGISTICS REPORT

70 DISTRIBUTION ADVISOR

80 MANAGEMENT

Next Month:

Doing More With Less

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

E.J. MULLER – Senior Editor (West Coast)
(415) 387-0275

THERESA M. STELTZER – Senior Editor
(215) 964-4381

ANNETTE FREEMAN – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
JAMES MARTIN (312) 864-8182
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 307-8808
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett Packard

STANLEY ROZYCKI
VP Transportation/Logist
Federated Department Stores, Inc.

GARY M. THOMPSON
Director of Physical Distribution
Kraft Inc., Dairy Group

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1989. Subscription rate: U.S. and possessions, $55 per year. Canadian, $60. Foreign $80. Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in-Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0275-6721/87 $1.00 + 25¢.)

BEST AVAILABLE COPY

TRANSPORTATION REPORT

Airfreight

FEDERAL EXPRESS BUYS TIGERS, GOES TO THE MAT WITH UPS

Its $880 million purchase of Flying Tigers, the world's largest all-cargo airline, has helped Federal Express to dramatically up the ante in its battle with United Parcel Service.

Fed Ex's precious gain is Tigers' international routes in Europe and, most importantly, the Pacific. "This is a reverse Nelson on UPS," says John J. Cella, Airborne Express's executive vp-international, using an apt wrestling metaphor. "It's a good move on Federal's part, but not without some risk."

One such risk is whether Fed Ex can integrate Tigers' 3,200 unionized employees into its non-union operation. "I think they'll leave it alone for the time being," says Uwe Steurnagel, president of AFSAC, Inc., one of many international air forwarders surprised by the Tigers purchase. He would have preferred to see an airline buy Tigers, but Steurnagel is unfazed by the move, which could cut into forwarders' overseas markets. "I'm a little bit concerned," he notes, "but I believe it's a big enough market."

UPS, for whom Flying Tigers carries a huge amount of Japan-bound freight, is predictably close-lipped about the deal. "We do not anticipate any disruptions in our Pacific Rim service," says UPS spokesman Robert Kenney. Whatever happens, this is the first big "stay tuned" story of 1989.

ARE FAXES PUTTING THE WHAMMY ON AIR EXPRESS? THIS STUDY SAYS NO

The use of facsimile transmissions has become nearly ubiquitous as a communications tool for Corporate America. As a result, some industry hawks have trumpeted the beginning of the end for air express carriers.

"For each communication vehicle please tell me with which audiences your company uses this tool?"

	Employees	Suppliers	Clients	Government
First-class mail?	76%	75%	84%	72%
Messenger service?	38%	51%	65%	40%
Air express?	38%	59%	81%	44%
Facsimile?	66%	75%	80%	44%
Voice mail?	47%	17%	18%	9%
Telex?	46%	46%	51%	35%
Video programming?	43%	2%	13%	2%
Electronic mail?	72%	16%	22%	7%
Satellite conferencing?	23%	5%	10%	1%

Lines of communication

Eighty-one percent of the executives contacted for a study by Airborne Express said their use of fax has increased in the past year. However, those executives say fax is having a limited impact on air express: approximately 77 percent said the use of air express has either remained constant or increased during the same period. Study participants were chosen from among the nation's largest companies for their knowledge of communications tools and policies.

The study also found that while technological improvements in communications systems and networks reduce the number of face-to-face meetings among employees, executives say these advances will not have the same impact on external audiences. "These findings suggest that the personal touch is still critical in maintaining business relationships," says Airborne's Kent Freudenberger, executive vp of sales and marketing. "No technology breakthrough is likely to eliminate the need for personal relationships."

The most sophisticated communications tools, such as electronic mail, satellite conferencing and voice mail, are used more frequently to communicate in-house than with outside sources (see chart at left). Freudenberger says this is because communications systems tend to be compatible internally, yet incompatible with those used by suppliers and customers.

THAI AIRWAYS REPORTS RAPID CARGO GROWTH, ADDED CAPACITY

Ringing up record numbers for its cargo operations has enabled Thai Airways International to increase its capacity to North America by 75 percent, the airline says.

Thai's own flights carried 133,000 tons of air cargo last year, up 21 percent from 1987 figures. Revenue increased 19.6 percent, while cargo's contribution to total airline revenues reached 15.8 percent. Total cargo handled at Thai's cargo terminal at Don Muang Airport in Bangkok reached 237,000 tons, up 20 percent from last year. Of that total, which includes Thai's own cargo and that handled on behalf of 40 other carriers, 44 percent was for export, a 24 percent increase.

Meanwhile, Thai reports that the number of "irregularities"—shipments in which cargo or documents were either lost, mishandled or damaged—amounted to 1.5 percent, one of the airline's lowest rates ever.

THE PURCHASING MANAGER OF THE 1990s

A recent study indicates the anticipated integration between purchasing and logistics has not materialized. If this relationship is as critical to corporate success as everyone believes it is, what do the 1990s hold?

By Jay Gordon, Managing Editor

The purchasing manager of the 1990s, believe it or not, is going to be an engineer.

Not an engineer in the vocational sense, necessarily, but an engineer of corporate relationships. No longer is the purchasing manager concerned solely with how to make the next buy; he now is responsible for supplier management.

With this added scope of the function has come a new trend: the scattering of purchasing responsibilities within the firm. Purchasing is no longer the stand-alone function it once was, a fact noted with chagrin by many purchasing pros who have busied themselves building empires over the past several years.

Yet they may turn out to be the big winners. With the shift to supplier management, purchasing is being asked to develop or acquire new skills and make new contributions in a number of areas such as quality, transportation, forecasting, production scheduling and product design. As a result, purchasing will have a level of input into strategic corporate planning and decision making that is unprecedented.

"The smart purchasing people are realizing that this might be the biggest power play of all," says Dr. Joseph Cavinato, associate professor of business logistics at Penn State University. "They are managing commercial relationships."

Jack Barry, a senior consultant in the logistics practice of Arthur D. Little, has a name for this. "The old line approach to purchasing problems is to treat it like a hot potato," he says. "You call up a supplier and dump on him. The new approach is *simultaneous engineering.* Here, you work with the vendor to solve problems and reduce costs for both parties. You take a nickel out and say, 'You get three cents, I get two cents.'

"And there's teeth behind this," Barry adds. "There's money to be made here. Vendors are saying, 'I'm 20 percent higher than the other guy. Let me explain to you why that is a good investment.' "

Figure 1

FUNCTIONS REPORTING TO PURCHASING

Function	#	%
Inbound traffic	29	10
Outbound traffic	2	1
Inbound & outbound	91	31
Warehousing	102	34
Inventory control	111	37
Scrap disposal	169	57
Receiving	77	26
Incoming inspection	48	16
Other	81	27

In about one-third of the CAPS study firms, logistics functions report to purchasing.

Organizational Relationships

How will this be played out in the real world of the 1990s? How will purchasing be organized to accomplish this ambitious game plan? A study recently published by the National Association of Purchasing Management's Center for Advanced Purchasing Studies answers some of these questions.

One of the most revealing aspects of the study is that it counters the notion that companies are organizing so that all materials flow functions, both inbound and outbound, report to a logistics manager. While this idea is often discussed in U.S. and European logistics circles, the CAPS study found that it is uncommon in practice: less than one percent of the organizations reported that purchasing reports to logistics.

The study did find that a vast majority of the 297 respondents have

continued

opted for some combination of centralized and decentralized purchasing. This enables a company to have some purchasing done locally, close to the actual requirement, and some handled centrally to take advantage of volume buying.

This is exactly the setup at chemical and pharmaceutical manufacturer Hoechst Celanese, which was formed in 1987 when American Hoechst and Celanese Corp. merged. At the time of the merger, says Rich Young, manager, domestic & import distribution, Hoechst was mostly centralized, while Celanese was mostly decentralized. "Now," says Young, "we're at the mean of the two."

Each of Hoechst Celanese's five operating divisions has a centralized purchasing department. For "leverage issues"—goods and services used by all the divisions—there are regional purchasing managers who take advantage of the company's collective clout. "What we have tried to do," says Young, "is to decentralize to get closer to the customer without losing leverage on important items."

On the international side, inbound freight is a function of the distribution department and is well controlled by the company, Young says. Domestically, control of inbound freight depends on the commodity, who's buying it and where they're buying it from. "I might have a microcosm of the world in this company," Young says. "Our purchasing terms range from FOB-shipping point, which is complete abdication, to a situation where the purchasing manager meets with the distribution manager and says, 'I'm buying this; what's the best way to do it from a transportation standpoint?' "

Figure 2

ACTIVITIES NEWLY ASSIGNED TO PURCHASING

Activity area	#	%
Strategic planning	26	9
Product development	8	3
Traffic/transportation	37	13
New product evaluation	12	4
Capital equipment buys	21	7
Personnel travel	41	14
Marketing planning	4	1
Economic forecasts	18	6
Futures trading	8	3
Cash flow planning	11	4
Countertrade/offset	36	12

Transportation duties have been newly assigned to purchasing in 13 percent of the CAPS firms.

Supporting Corporate Growth

The situation is much the same at Merck Chemical Manufacturing Division (MCMD), a unit of pharmaceutical giant Merck Sharp & Dohme. Materials management is organized on a divisional basis, reporting to the senior vp of manufacturing and technology. This senior corporate executive sets corporate materials management policy and establishes objectives.

According to Allan L. Mysel, executive director, materials management for MCMD, the materials management units are responsible for purchasing, production planning, inventory control and transportation. Based at corporate headquarters in Rahway, N.J., MCMD purchasing serves other groups at that location, including research and various corporate staffs. MCMD is basically a captive manufacturing division. Its eight plants—four in the U.S., one in Puerto Rico and three in western Europe—provide bulk active pharmaceuticals to Merck's other divisions.

At the division level, purchasing is highly centralized. Some purchasing is done at the plants, but major buys are made at division headquarters. A transportation council, made up of representatives from the operating divisions, negotiates company-wide transportation rates and services.

Perhaps the biggest task for Merck is to integrate its international purchasing to help meet some lofty corporate objectives in an increasingly intense competitive environment. Merck, already the largest U.S.-based pharmaceutical company in Europe, has its sights set higher. "Our chairman has made it clear that we expect to rank number one in sales in Europe by 1992," says Mysel. "The challenge to purchasing is to support these growth objectives. We will look at what we are buying, for whom we are buying and *from* whom we are buying. One question we'll be asking is, 'Could we be buying in a country where we're not manufacturing in order to increase our presence in that country and support our sales efforts there?' "

Merck's action plan includes enhancing vendor evaluation and certification programs and reducing the supplier base. While he doesn't embrace single sourcing for the pharmaceuticals business, Mysel feels it would be advantageous to have one major source for an item and a second, viable source that gets enough of Merck's business to remain interested and willing to work with the company. The position of these two prominent sources could shift from year to year, and a small portion of the company's requirements would remain uncommitted to allow development of new sources. Mysel also foresees a continuing commitment on Merck's part to encourage, develop and use minority vendors. "The key to the future," Mysel says, "is strong, close, mutually advantageous partnerships with the best suppliers—those that are high quality, reliable, technically and commercially innovative and competitive."

Hoechst Celanese's Rich Young says his company also is partnershipping with vendors. The biggest part of that is sharing information, which enables both sides to control costs. "We're moving toward the point where we won't need to inspect the vendor's product," he says, "but the responsibility for measuring and monitoring quality is squarely on the vendor." ■

For a description of the four steps to successful supplier management, see this month's management column, "New Levels of Logistics Purchasing," on page 80.

IT'S TOUGH TO BE ON THE RECEIVING END

Our readers are sold on the value of inbound freight management. Now if they could only get other key players to buy in.

By Joseph V. Barks, Contributing Editor

Figure 1

TYPES OF INBOUND FREIGHT	
Unprocessed raw materials	29.7%
Processed raw materials	47.9%
Unassembled products	18.9%
Subassemblies	42.8%
Finished goods	67.3%

Inbound does not necessarily mean in-process. Here, the domination of retail receivers accounts for much of the high proportion of finished goods. But the high percentages of processed raw materials and subassemblies also reflect an increasing awareness of the need to control all inbound costs as part of a total logistics strategy.

Figure 2

PERCENT OF INBOUND FREIGHT SHIPPED COLLECT	
0- 10%	18.3%
11- 20%	8.0%
21- 30%	4.5%
31- 40%	5.0%
41- 50%	7.5%
51- 60%	6.6%
61- 70%	5.0%
71- 80%	8.4%
81- 90%	15.5%
91-100%	21.1%

The higher percentages at the top and bottom ends of this scale indicate that it's often an all-or-nothing proposition when vendors or receivers dictate freight terms. Blanket policies and overriding inbound contracts are more common than per shipment decisions.

Figure 3

INBOUND ROUTING GUIDE FOR SUPPLIERS	
Yes	65.4%
No	34.6%

Until details about inbound routing procedures are defined for the remaining one-third of suppliers, it's doubtful that the primary inbound problem – vendors not following instructions – will be diminished (see Figure 7).

If there's been one basic lesson that distribution professionals have learned in the 1980s, it's been how to look both ways. Think about it. Ten years ago there was plenty of lip service about pipelines and big-picture orientations, but little impetus to turn shippers' attention away from the placid, traditional outbound horizon. Then, in rapid succession, came the following powerful forces:

- **Deregulation**, which spurred shippers to grab for all the freight they could control, to take full advantage of volume discounts. Eureka! They discovered inbound, the untapped gold mine of goods.
- **JIT** inventory management, which said getting it here is just as important as getting it there.
- **EDI** and other data processing developments, to better close the loops between all of the various parties in transportation transactions.
- **Global outsourcing**, which put an even greater premium on the front end of the manufacturing equation, particularly in high-value, high-tech industries.
- **Booming retail markets**, which by their very nature are inbound-oriented.

These factors contributed to a dramatic and enduring facelift of the industry. Traditional transportation types began to take on the characteristics of purchasing managers, and vice versa. New carriers appeared that bore no resemblance to their one-way, pre-1980s predecessors. "Shipping and receiving" became equal partners in more than name only within the distribution departments of many major firms.

Confident Responses

The magnitude of the inbound uprising that has occurred in the past decade was reflected in responses to DISTRIBUTION's recent *Dialogue* survey on inbound freight management (see charts at left and on page 54). The volume of respondents, nearly 600 readers, would have been unthinkable 10 years ago. So, too, would the extent of inbound activity they reported.

To be sure, inbound is not a new phenomenon for many companies. "We have been managing our inbound freight for many years," said one "no big deal" survey re-

continued

sponse. "The benefits of controlling our movements far outweigh any problems we've encountered, or the costs involved."

Still, this comment was far more typical: "We are in the first year of our inbound program, and information and feedback are at a premium. Controlling inbound traffic and costs is a big job, and a very exciting one."

Excitement. Confidence. Conviction. Determination. These emotions were evident throughout this particular reader dialogue, as respondents made it clear that inbound freight management is now as much part and parcel of their job descriptions as, well, parts and parcels.

Barriers to Inbound Efficiency

Another emotion predominated the discussion, however: frustration. Our readers are now so charged up to make the most of their newfound inbound opportunities, they found it impossible to contain their disgust with the many barriers – internal, external, and infernal – that block the way to peak efficiency. As the selection of comments on page 56 indicate, our survey became a tear-out spleen venter that carried back multiple indictments against "idiot vendors," "unethical carriers," and "reticent managements" that continue to stymie logisticians' best-laid inbound plans.

Disappointment to this degree is to be expected, though, whenever high levels of eagerness and expectations coincide with a low point on the learning curve. As experience grows and companies can substitute results for speculation, we can expect a simmering of inbound tensions. The potential for inbound success remains too compelling to believe that solutions to these initial implementation problems won't be found.

The numbers supplied by one respondent literally speak volumes: "For calendar year 1987, we had a net savings of $2.1 million in inbound freight charges, and that amount is just barely scratching the surface for the total amount of product received in our warehouse." With that kind of incentive, we can expect to check back with our readers 10 years from now and hear many more echo what was a rare comment this time around: "We do not have any significant problem with this aspect of managing our distribution. Control over inbound freight is extremely effective." ■

Figure 4

CONTROL OF CARRIERS FOR INBOUND FREIGHT

Traffic controls all inbound	46.8%
Purchasing controls all inbound	28.7%
Traffic controls subassemblies and finished goods	11.5%
Purchasing controls raw materials and semifinished goods	11.2%
Purchasing/traffic committee	22.2%
Inbound/outbound by logistics	74.8%
Inbound/outbound by purchasing	6.5%
Inbound/outbound by other department	4.9%

Multiple answers muddied the message from this question, but one important trend does seem to emerge: When distinctions are made between inbound and outbound control, purchasing becomes a bigger player. Further, significant distinctions are sometimes made for responsibilities according to type of inbound goods.

Figure 5

REASONS FOR NOT CONTROLLING INBOUND

Branch department	20.5%
Company policy-delivered basis only	20.5%
Vendors insist on routing	20.5%
Vendors/suppliers have more clout	20.5%
Other	18.0%

The majority of respondents didn't have any reason for not controlling inbound freight. Among the shrinking minority that still washes its hands of any inbound responsibility, reasons were remarkably dispersant. "Other" responses included this still-too-frequent shipper's lament: "Old-time VP still controls traffic; times have changed, age has not."

Figure 6

MOST IMPORTANT BENEFIT OF INBOUND CONTROL

Control over number and quality of carriers	20.4%
Better coordination with production/sales	16.5%
More control over inbound transportation costs	44.1%
More leverage in rate negotiations	16.7%
Other	2.3%

The control factor came to the fore when respondents had to pick their one reason for asserting inbound control. And, unlike the outbound side, where the cost/service debate remains a tossup, it's clear at this end of the logistics pipeline that inbound freight management is primarily a cost-savings tool.

Figure 7

PROBLEMS ENCOUNTERED WITH INBOUND

Vendors/suppliers do not follow routing instructions	68.5%
Lack of staff/expertise	25.4%
Lack of scheduling/rate information	12.3%
Absence of fully integrated system	27.7%
Difficulty auditing freight charges	10.9%
Difficulty settling claims	8.5%

Sure, there are problems with inbound, but they don't seem to be anything that more communication, more people, more management support and more information won't cure.

To see what readers had to say about inbound freight management, please turn to page 56.

THE INBOUND COMPLAINT DEPARTMENT

Readers quickly queued up in six long lines. Here's how the gripes were grouped, with samples of each:

Vendor Venom

"Vendors may comply on the first shipment, and possibly the second; then they have a memory lapse!"

"Idiot vendors don't follow instructions; their careless shipping departments package inadequately."

"Vendors remain constant, but their shipping locations change like the wind. This makes full integration difficult."

"Getting correct information from vendors regarding weight cubes and shipping points is extremely difficult. Vendor sales forces do not have good knowledge of vendor traffic departments."

"Vendors and suppliers often ignore routings and are unable to correctly describe freight to get proper classification."

Purchasing Protests

"A major problem is the reluctance of our purchasing department to change from the FOB-delivered, freight included mindset."

"Purchasing does not consult traffic for advice and/or recommendations on routing. Instead, it always allows vendors the 'ship best way' option."

"We are continually frustrated trying to make purchasing managers understand the benefits of consolidation of multiple purchase orders, and the benefits of single-sourcing inbound freight, parcels and air."

Scheduling Snafus

"We often have a lack of order or lead time for receipt of goods, therefore leading to 'JINT' (Just in Nick of Time) delivery."

"We're frustrated by an inability to 'cluster' high-quality vendors to enhance transportation methods and improve JIT applications."

"Coordinating the receipt of shipments during peak shipping periods is a periodic headache."

"The actual delivery of product is our biggest problem, because there are too many delivery locations and receiving people involved. We're considering a central receiving location as a solution."

Corporate Complaints

"The wide variety of people initiating an inbound transportation event is a big problem. It can range from an experienced buyer in a purchasing department to a clerical temp from an agency."

"The biggest problem we face is a lack of insight within our distribution system as to the potential savings when we control how the product is to be shipped."

"We're hurt by the lack of a central logistics/traffic section. Contracts management is responsible for the current effort and is understaffed for the job."

"Convincing senior management, as well as engineering, of inbound's importance is an ongoing challenge. It is still not considered an important aspect of our business, unless material is needed immediately."

"JIT and 'ship to stock' programs provide an arena for buyers, engineers and production schedulers to justify telling vendors to ship by whatever carrier provides the best ballgame tickets, golf outings and fishing trips. Most have no regard for service and price."

"There's a lack of managerial awareness about inbound at the corporate level. Emphasis is on production, not on staff and service functions."

"Top management is never informed of the cost savings potential of inbound until logistics pulls the numbers out of accounting."

Data Disputes

"We need to have our plants agree to modify their local purchasing/receiving systems to support a centralized database."

"We must develop a software system to effectively and efficiently measure and control the movement of inbound shipments."

"We lack a comprehensive, systematic method of building a database for inbound movements that is equal to what's available on outbound shipments."

"The volume of paper we have to audit to make sure all parties are shipping correctly is monstrous."

"We suffer from a lack of available software products to automate a consolidation program."

Carrier Criticisms

"We use a lot of irregular route truckload carriers and their traffic patterns are always switching. So we are constantly revising our inbound routing guides."

"Our difficulties center on safety, service and quality of our supplier-provided rail equipment. Our suppliers don't seem as concerned about condition, quality and compliance issues as we are."

"We must constantly watch to make certain carriers do not refund our dollars to vendors through rebates, refunds and incentive programs."

"Getting carriers to conform to our inbound receiving requirements such as 'notify before delivery' and open and closing times is always a problem."

"Competing contracts cause conflicts; when both shipper and receiver have contracts via competing rail routes, service can suffer."

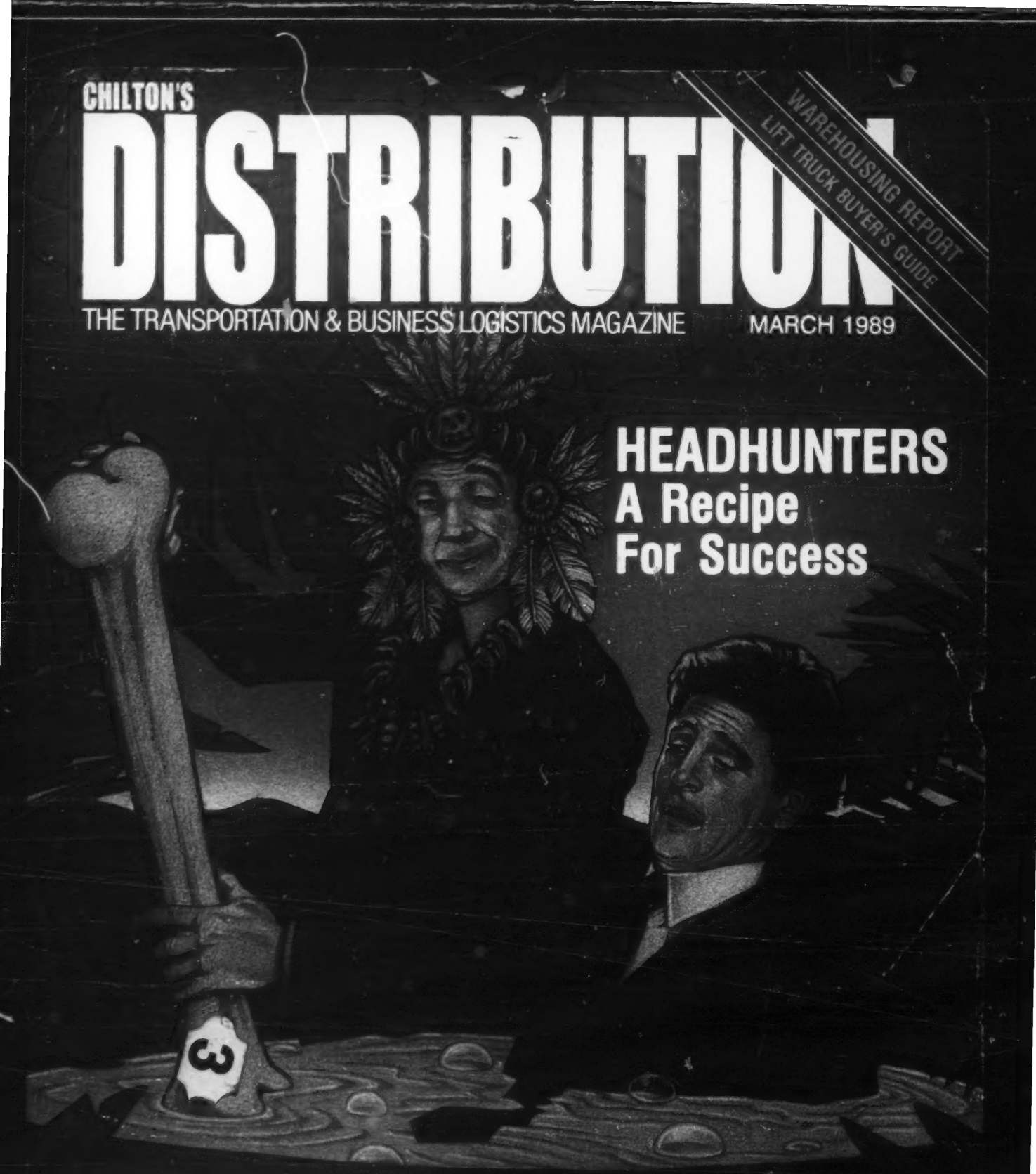
"Service remains a variable with most carriers. Carriers maintain schedules on a line-haul basis, but the P&D segment of the service falters with many."

CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE MARCH 1989

WAREHOUSING REPORT
LIFT TRUCK BUYER'S GUIDE



HEADHUNTERS
A Recipe For Success

002528 010 008
SUSAN GARNER
CONGRESSIONAL INF SERVIC
4520 EAST WEST HIGHWAY
BETHESDA MD 20814

JIT FOR EVERYONE

VAN LINES DIVERSIFY

FREE UP YOUR FREIGHT DOLLARS

MARCH 1989

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 3

COVER STORY

30 HEADHUNTER HINTS

If you're in the logistics field and looking for more money, a better corporate environment, or a more challenging career climb, how do you infiltrate the job placement network? There's really only one surefire way. Have what the industry is looking for, and make sure they know it. Here are some tips that could land you the job you've always wanted.

FEATURES

40 INTERNATIONAL STRATEGIES

50 VAN LINES SEEK NEW PROFIT OPPORTUNITIES

58 CASEBOOK: JUST-IN-TIME

70 HARLEY'S GOT THE HANDLE ON INBOUND

78 USING THE COMPUTER TO MAKE BETTER DECISIONS

82 THE BEST DEFENSE IS A GOOD OFFENSE

92 FREE UP YOUR FREIGHT DOLLARS

103 LOGISTICS TOOLS: LINKING LOGISTICS AND FINANCE

112 WAREHOUSING: A REVIEW FOR MANAGEMENT

DEPARTMENTS

4 EDITORIAL

7 OCEAN CARRIER BALLOT

13 LOGISTICS TRENDS

16 TRANSPORTATION REPORT

28 GLOBAL LOGISTICS REPORT

100 SOFTWARE REVIEW

106 DISTRIBUTION'S INFO HUB

107 LITERATURE

109 DISTRIBUTION ADVISOR

136 MANAGEMENT

Next Month:
Organizing For Success

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

E.J. MULLER – Senior Editor (West Coast)
(415) 387-0275

THERESA M. STELTZER – Senior Editor
(215) 964-4381

ANNETTE FREEMAN – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
STANLEY HOFFMAN (203) 790-4195
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 307-8808
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett Packard

STANLEY ROZYCKI
VP Transportation/Logistics
Federated Department Stores, Inc.

GARY M. THOMPSON
Director of Physical Distribution
Kraft Inc., Dairy Group

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089. (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1989. Subscription rate: U.S. and possessions, $55 per year. Canadian, $60. Foreign $80 Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

VAN LINES SEEK NEW PROFIT OPPORTUNITIES

With the traditional household goods market slumping, van lines are diversifying to remain competitive. They're banking on a reputation for specialized care and faster, on-time delivery.

By Robert Bowman, Contributing Editor

Van lines may be the Cadillacs of the trucking industry, but they aren't immune to the ravages of deregulation. Since 1980 they have been coping with the same problems that bedevil common carriers: rate slashing, increased competition, growing demands for service, and the rising cost of insurance and equipment.

It's no surprise that interstate van lines are eagerly seeking new profit opportunities. "There's been a slump in the traditional household goods market," says Melinda Ulrich, marketing manager of American Red Ball Transit. Even carriers reporting improved results admit that growth is marginal in a mature business. With a sluggish housing market, severe discounting and an unpredictable customer base, there's only one prescription for survival: diversify.

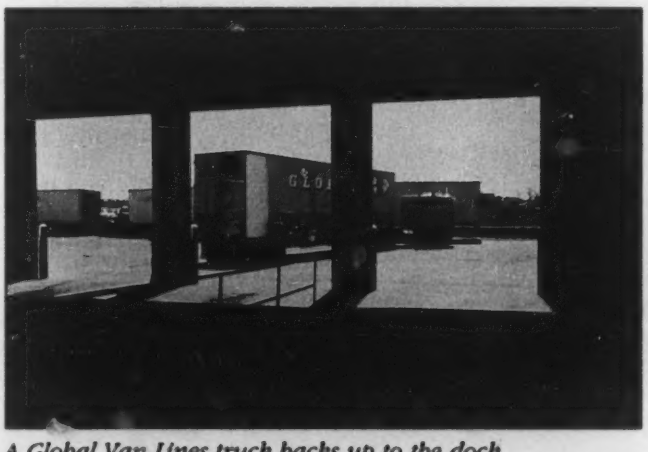
The biggest players have been doing just that for years, and in many cases, long before deregulation. North American Van Lines has been hauling electronics and exhibit materials for 25 years, according to Brent Meyers, director of marketing for the carrier's high-value division. Jim Wilson, executive vice president of United Van Lines, says his company has been moving computers for so long that he doesn't even view it as diversification anymore.

Indeed, the rapidly changing computer market has already matured. Richard H. Gorbett, vice president of marketing and sales development for Atlas Van Lines' specialized transportation unit, notes that the business is eroding because equipment is getting smaller. "The computer that once took up half a van can now fit in your glove compartment," he says.

Van lines have always been the ideal movers of sensitive computer equipment because of their reputation for special care. Typically, they will be equipped with padded vans, lift gates and air-ride suspension. The drivers are skilled in carrying the most delicate items. Years of experience in moving the family china and glassware has paid off at the corporate customer level.

Their reputation for quality makes van lines the ideal movers of other high-tech equipment such as office copiers and demonstration products destined for trade shows. Van line executives consider these to be some of

continued



A Global Van Lines truck backs up to the dock
Finding new ways to grow as HHG market matures.

Loading a United Van Lines truck with the household goods
Customers are moving not just across the country, but across the sea.

the hottest growth areas.

United is coping with the incredible shrinking computer by offering guaranteed seven-day service to anywhere in the country. The carrier improves utilization through a "cross-docking" operation, where shipments are reloaded for delivery to central locations.

Atlas is pursuing new high-tech business, such as medical equipment and industrial robots, according to Gorbett. The company is carving still another niche in the climate-controlled movement of art objects for museums and galleries.

Technology can help to differentiate a carrier. Last year Bekins Van Lines introduced scanning and tracking capability for its electronic freight. The system monitors shipments at designated points in transit, as well as during transfer and delivery, according to Marketing Manager Sandy Carbon.

Like United, Allied Van Lines is stressing speed. Its Express One service, for time-sensitive items, started five years ago. Shipments move through DCs run by 106 of Allied's 800 agents, according to a strict published schedule. Transit times range from two to seven days.

The emphasis on scheduling attracts new products to padded vans, according to Allied's Bob Stephan, vice president of marketing. The mix can range from electric motors to expensive tool boxes—anything that demands careful handling and service predictability. "It's not just computers anymore," he says.

The mix can range from electric motors to expensive tool boxes..."It's not just computers anymore," says Stephan.

Allied's special products division also focuses on exhibits and trade show business. Stephan says manufacturers increasingly are relying on trade shows because of the ability to make face-to-face contact with volume buyers. The time factor is important because a surprisingly large number of customers leave their show arrangements to the last minute, and then want rapid transit of the highest possible quality.

North American Van Lines, the industry leader in both household goods and specialized products, restricts the role of agents to that of a sales channel when it comes to hauling high-value freight. Meyers says the strategy gives the van line greater control over its moves. The company did about $173 million in revenues on the high-value side last year, out of total corporate sales of $844 million.

International moves are the latest target of Paul Arpin Van Lines. Executive Vice President Peter Arpin projects that sector to grow from $6 million to $30 million in revenues over the next few years.

Arpin has reshaped its international department and is busy making the crucial contacts with overseas agents. On the ocean transportation side it acts as the forwarder, booking vessels and combining all types of commodities in a single container. The trick, says Peter Arpin, is to be able to reciprocate by drumming up business for your foreign agent.

Others agree that international is one of the brightest spots in the business. United's revenues from foreign moves grew from $20 million in 1987 to $43 million last year. Allied has a separate global forwarding unit, Allied Van Lines International Corp. It expects to get a lot of help overseas from its British-based parent, National Freight Consortium.

The premium haulers are also squaring off against common carriers, at least on the high-value end. United has made a big push into the special commodities business, consisting of new furniture, fixtures, waterbeds, steel case cabinets and anything else that must not suffer a single scratch in transit. Launched in the early 1980s, the division now does $25 million of business a year.

continued

Write in 56 on Reader Service Card

"We feel very good about the future of the general commodity business," says Wilson. United feels so good about it that the company is expanding from pure truckload into LTL this year. Wilson expects to generate about $4 million on the LTL side in 1989. The program is aided by a trailer pool supplied by United's network of 550 domestic agents.

Once the nation's largest irregular route truckload hauler, North American Van Lines now concentrates its commercial business on specific lanes and products that yield the highest profit margins, according to Tom Cole, vice president-sales for the commercial transport division.

Despite diversification, household goods continue to provide the majority of most van lines' business. Household goods constitute the carriers' first proviso authority. The second proviso is office and plant relocations, and the third proviso consists of electronics, exhibits and other special services. The secret to success in household goods, according to United's Wilson, is a network of top-flight agents.

"The local mover is the name of the game," he says. That's why so many van lines bend over backwards to make their agents happy. In the case of United, the company takes a

continued

HOUSEHOLD GOODS CARRIERS' 1987 RESULTS

Tonnage and Revenue by Proviso*

Carrier	First Proviso		Second Proviso		Third Proviso		Total All Provisos	
	Revenue	Tonnage	Revenue	Tonnage	Revenue	Tonnage	Revenue	Tonnage
Allied Van Lines	$ 309,390	524,864	$ 6,479	10,912	$ 45,081	87,252	$ 360,950	623,028
American Red Ball	$ 25,294	34,516	$ 383	730	$ 746	1,470	$ 26,423	36,716
Atlas Van Lines	$ 147,806	234,823	–	–	$ 26,199	52,818	$ 174,005	287,641
Barrieau Express	$ 4,431	7,100	–	–	$ 656	1,050	$ 5,087	8,150
Bekins Van Lines	$ 138,538	228,079	$ 694	1,196	$ 60,631	139,344	$ 199,863	368,619
Burnham Serv. Corp.	$ 18,360	43,221	–	–	$ 58,460	137,619	$ 76,820	180,840
Cartwright Van Lines	$ 14,856	19,735	–	–	–	–	$ 14,856	19,735
Clark & Reid	$ 5,114	7,654	$ 4	3	–	–	$ 5,118	7,657
Fogarty Van Lines	$ 5,648	12,429	–	–	–	–	$ 5,648	12,429
Global Van Lines	$ 42,995	84,000	–	–	$ 8,539	5,000	$ 51,534	89,000
Graebel Van Lines	$ 39,954	73,534	$ 163	289	$ 829	2,372	$ 40,946	76,195
Interstate Van Lines	$ 12,540	23,732	–	–	–	–	$ 12,540	23,732
Mayflower Transit	$ 208,407	408,653	$ 4,137	2,292	$ 61,017	90,198	$ 273,561	501,143
National Van Lines	$ 13,682	32,640	$ 1,726	4,125	$ 84	250	$ 15,492	37,015
North American	$ 285,114	502,969	$ 9,982	17,609	$140,877	248,521	$ 435,973	769,099
Pan American	$ 8,238	41,899	$ 20	12	$ 2,983	4,753	$ 11,241	46,664
Paul Arpin Van Lines	$ 32,107	49,878	–	–	–	–	$ 32,107	49,878
Security Van Lines	$ 5,279	7,342	–	–	–	–	$ 5,279	7,342
Sherwood Van Lines	$ 6,706	18,779	–	–	–	–	$ 6,706	18,779
United Van Lines	$ 325,799	621,008	–	–	$ 64,063	116,824	$ 389,862	737,832
Wheaton Van Lines	$ 40,623	65,827	$ 1,049	1,868	$ 102	153	$ 41,774	67,848
Total-1987	$1,690,881	3,042,682	$ 24,637	39,036	$470,267	887,624	$2,185,785	3,969,342
Percentages	77.36%	76.65%	1.13%	0.98%	21.51%	22.36%	100.00%	100.00%
Total-1986	$1,615,689	2,550,008	$ 22,738	38,396	$437,681	860,484	$2,076,108	3,448,888
Percentages	77.82%	73.94%	1.10%	1.11%	21.08%	24.95%	100.000%	100.00%
Total-1985	$1,581,462	2,683,534	$ 23,771	31,226	$450,526	921,577	$2,055,759	3,636,337
Percentages	76.93%	73.80%	1.16	0.86%	21.92%	25.34%	100.00%	100.00%

Source: Household Goods Carriers' Bureau Notes: All Revenue Figures in Thousands

***While the van lines continue to diversify into general freight carriage and other areas, household goods continue to provide their bread and butter. Household goods constitute the carriers' first proviso authority. The second proviso is office and plant relocations, and the third proviso consists of electronics, exhibits and various other special services. Most van line operators have already plunged into this third proviso area, but some have held back, claiming that competition with the for-hire trucking industry will make much of this freight unprofitable. Ironically, many van line operators believe that the key to their profitability lies in avoiding systematic rate discounting—long the bane of LTL truckers' existence.**

One of Bekins' air-ride vans
The key to profitability is to avoid rate-slashing chaos.

lower cut—8 percent—and even allows its agents to haul under their own authority for interstate moves of up to 750 miles.

Allied stays competitive in household goods through seasonal pricing. Stephan says the company didn't take the industry-wide tariff increase, averaging 3.9 percent, in early January. By summer, Allied might adopt the increase, and then lower its rates when demand slackens.

Some of the medium-sized household goods carriers are limiting their customer base. With $50 million in revenues, Paul Arpin Van Lines concentrates on serving big national accounts such as IBM and AT&T.

At least one industry executive suggests that diversification may be the wrong way to go. Dee Kline, senior vice president of sales and marketing for Global Van Lines, insists that much of the electronics and specialized services being offered today are really money-losing propositions.

"There's a lot of potential," he says, "but only so much business to be divided." Kline claims that van lines have overcommitted themselves by promising fast, coast-to-coast transit of electronic goods. Unfortunately, high-tech products are getting smaller as equipment and insurance costs continue to rise. By the time the expensive haul is done, there's little left over for the agents. The result has been a spate of agency bankruptcies.

The real opportunities for profit remain with the traditional household goods movements, Kline says. Resisting suicidal rate slashing is the key. He says that sales representatives too often negotiate deep discounts which "take money right out of the driver's pocket." Corporate customers are even worse, he adds, with traffic managers bent on getting the cheapest rate possible.

Kline says today's drivers are being asked to supply top quality, on-time service while making less money. To combat the problem, Global is training its sales force to "educate the consumer" about the effects of reckless discounting.

Kline believes that van lines should be measured by their profits, not revenues. And while exhibits, electronics and others do offer possible growth, he says carriers need to exercise ratemaking discipline first if they are to survive.

"There's a lot of opportunity in doing what we've always done," says Kline, "as long as we do it well—and get paid for it." ■

Top Companies in the Van Line Industry

For more information on the following van lines and the services they provide, write in the appropriate number on the Reader Service Card.

Allied Van Lines
Write in #526 on Reader Service Card

American Red Ball Transit Co.
Write in #527 on Reader Service Card

Atlas Van Lines, Inc.
Write in #528 on Reader Service Card

Barrieau Moving & Storage Co.
Write in #529 on Reader Service Card

Bekins Van Lines Company
Write in #530 on Reader Service Card

Burnham Service Corporation
Write in #531 on Reader Service Card

Cartwright Van Lines
Write in #532 on Reader Service Card

Clark & Reid Company
Write in #533 on Reader Service Card

Global Van Lines, Inc.
Write in #534 on Reader Service Card

Graebel Van Lines
Write in #535 on Reader Service Card

Interstate Van Lines, Inc.
Write in #536 on Reader Service Card

Mayflower Transit, Inc.
Write in #537 on Reader Service Card

National Van Lines, Inc.
Write in #538 on Reader Service Card

North American Van Lines, Inc.
Write in #539 on Reader Service Card

Pan American Van Lines, Inc.
Write in #540 on Reader Service Card

Paul Arpin Van Lines
Write in #541 on Reader Service Card

Security Van Lines, Inc.
Write in #542 on Reader Service Card

United Van Lines, Inc.
Write in #543 on Reader Service Card

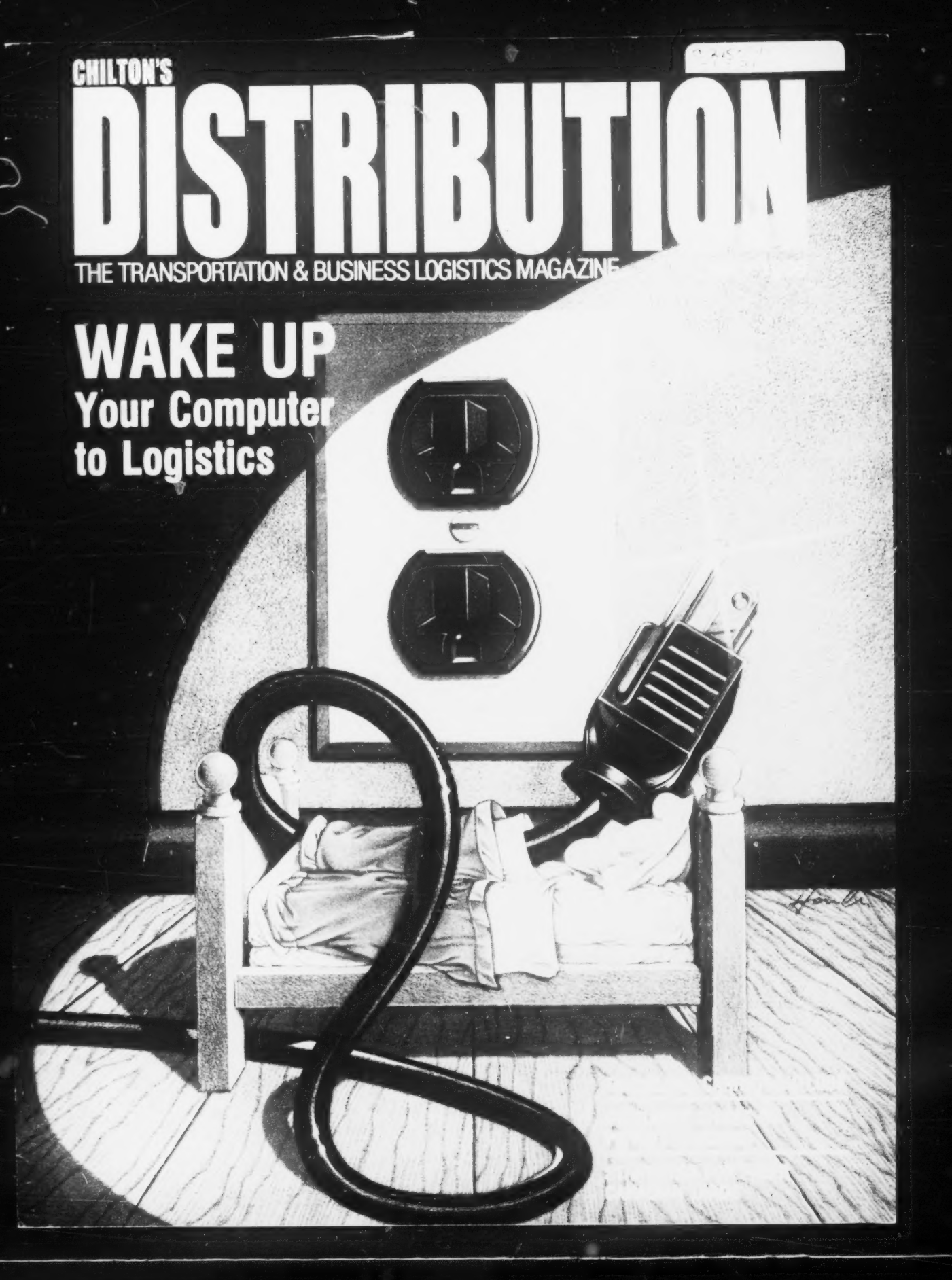
Wheaton Van Lines, Inc.
Write in #544 on Reader Service Card

CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

WAKE UP
Your Computer to Logistics



MAY 1989

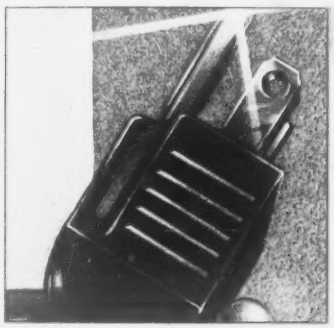
CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 5

COVER STORY

24 WAKE UP TO COMPUTERS!

For most companies, EDI, MRP, Auto ID and other advanced computer technologies are still a dream because their logistics departments lack the expertise, or the courage, to wake up the sleeping giant of integrated logistics systems. Top management has rung the alarm for today's logistics managers to open their eyes and learn how to share data.



FEATURES

30 FREE TRADE'S IMPACT ON TRANSPORTATION

Shippers must still cut through red tape to get their tariff-free goods to market.

34 TRUCKLOAD STAKES OUT NEW TERRITORY

That's good news for shippers, but the amount of freight isn't expanding as rapidly as the number of trucks vying for it.

40 CASEBOOK: SOFTWARE SUCCESS STORIES

46 STEELCASE'S AMBASSADORS OF THE ROAD

It's not easy being a driver for Steelcase's private fleet.

50 THIRD-PARTY CARRIERS CAN BOOST LOGISTICS

Making direct-store deliveries in metropolitan New York is no picnic.

54 LOGISTICS TOOLS: HOW TO EVALUATE A NEW SUPPLIER

DEPARTMENTS

4 EDITORIAL

7 TL CARRIER BALLOT

13 LOGISTICS TRENDS

16 TRANSPORTATION REPORT

22 GLOBAL LOGISTICS REPORT

58 SOFTWARE REVIEW

64 DISTRIBUTION ADVISOR

67 EQUIPMENT & TECHNOLOGY

69 LITERATURE

70 DISTRIBUTION'S INFO HUB

80 MANAGEMENT

M1-M12 MAILIT

Next Month:
Intermodal Case Studies

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

E.J. MULLER – Senior Editor (West Coast)
(415) 769-0884

THERESA M. STELTZER – Senior Editor
(215) 964-4381

SHARON STRUCKUS – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
STANLEY HOFFMAN (203) 790-4195
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 307-8808
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett-Packard

STANLEY ROZYCKI
VP, Transportation/Logistics
Federated Department Stores, Inc.

GARY M. THOMPSON
Director of Physical Distribution
Kraft Inc., Dairy Group

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1989. Subscription rate: U.S. and possessions, $55 per year. Canadian, $60. Foreign $80. Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in-Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + .25¢.)

TRUCKLOAD STAKES OUT NEW TERRITORY

Truckload firms are competing fiercely for freight on low-cost, secondary routes. That's good news for shippers. But the amount of freight isn't expanding as rapidly as the number of trucks vying for it.

By Kurt Hoffman, Contributing Editor

Call them high-service, high-utilization, advanced, low-cost or super. Today's leading truckload carriers continue to rack up impressive 15 to 35 percent annual growth rates as they duel their competition for the allegiance and dollars of the shipping public.

Factor in the growing high-density lane competition of low-cost, double-stack container trains and other intermodal operations, particularly on westbound routes, and there are new opportunities for shippers. Truckload firms faced with oversaturation of competition in the primary lanes are hungrily scouring secondary routes, seeking new sources of freight to fuel their rapid annual growth.

This redirection of sales should bring attractive rate and service packages for distribution managers along secondary routes who have been hearing for years about 80 cent-per-mile routes but haven't seen any.

What's Out There?

"There's only so much freight out there, and the amount isn't expanding nearly as rapidly as the number of trucks that are trying to get on the road," says Terry Turner, executive director of the Interstate Truckload Carriers Conference.

But a lot of freight is changing hands between carriers. When the largest carrier operating in a $100 billion market has annual revenues of about half a billion dollars, there's a lot of room for well-managed, low-cost companies to grow.

"More shippers are adopting the 'core carrier concept' where they do business with only a few larger, better capitalized, higher-service carriers," says John Larkin of Alex Brown & Sons.

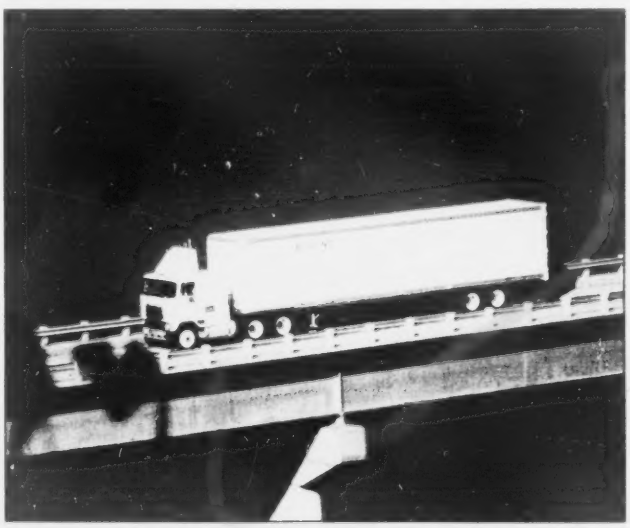
"As more shippers aggressively implement this theory, tremendous growth opportunities open up for carriers that meet the core carrier criteria and have the financial means to add equipment fast enough to handle a larger share of the customer's business," says Larkin. "Having the management and control systems to hold it all together is another critical factor."

"There aren't many people out there that can satisfy those criteria," adds Larkin. "Those that do can make a whole lot of money for their investors over the next few years."

Private freight conversion also should feed truckload's growth into the 1990s. Although long-haul private carriage freight already has been ravished by truckload and intermodal operators, private carriage conversion in the shorter haul and secondary lanes will almost certainly follow the redirection of truckload sales and marketing efforts.

"Long-haul private carriage has really been eaten up by the truckload carriers," says Paul Roberts, a motor carrrier consultant. That may not be apparent when you look at the cumulative numbers of private carriage, but short-haul movements account for a tremen-

continued



J.B. Hunt is the largest and most profitable truckload carrier
Hungry carriers scour secondary lanes for freight.

dous share – perhaps as high as 85 to 90 percent of private carriage," he says.

As the railroads reinforce their positions in the long-haul, high-density lanes, truckers are gravitating away from the intense rail competition in those long-haul lanes and setting their sights on shorter-haul and secondary lanes where less intermodal competition exists. It's along these secondary routes where more opportunities for private carriage freight conversion lay waiting.

However, these higher-rated, shorter-haul routes create certain problems for truckload carriers, notes Larkin. "It's more difficult to get utilization, reduce empty miles, and keep the drivers happy," he says. "But increasingly, the J.B. Hunts, the Werners and the Schneiders of the world are going to be turning over more and more rocks in places where they previously wouldn't have considered looking," says Larkin.

"Intermodal carriers may be eating the truckers' lunch in the high-density, long-haul lanes like Seattle-Chicago and L.A.-Chicago, but conventional TOFC in the 500-mile range is being compressed into a profitless operation in some lanes, such as Atlanta-Chicago and Atlanta-St. Louis.

"Those are marginally profitable lanes for TOFC anyway. It's just too short a distance. You can't run double-stacks, and the TOFC rates are too high if you're going to recover your full costs," says Roberts. Some railroads are pulling out of those lanes, he adds, as evidenced by CSL Intermodal's recent downsizing of its core intermodal network. CSLI substituted service by CMX Trucking in some corridors that previously received direct intermodal service. "That makes the freight that much more susceptible to truck diversion," says Roberts.

Rate competition, especially in backhaul lanes, should encourage shippers of large LTL loads to convert to truckload, where higher service factors can be obtained for the same price as the LTL movements.

ATLFs vs. Average TL Carriers

Cost Comparison

Costs/Total Mile	ATLFs	Average Carriers	Variance
Labor	.27	.33	22%
Fuel	.19	.23	21%
Equipment	.21	.27	29%
Other	.21	.20	(5%)
Total	.88	1.03	16%

ATLFs vs. Average TL Carriers

Productivity/Efficiency Comparison

Factor	ATLFs	Average Carriers
Tractor utilization	113,000	94,000
Empty mileage ratio	7%	12%
Out-of-route ratio	8%	12%
Trailer:tractor ratio	2.0	1.5
MPG	5.75	5.25

There is a significant difference in productivity and operating cost between advanced truckload firms (ATLFs) and their competitors.

Source: Temple, Barker & Sloane

The Competition Stiffens

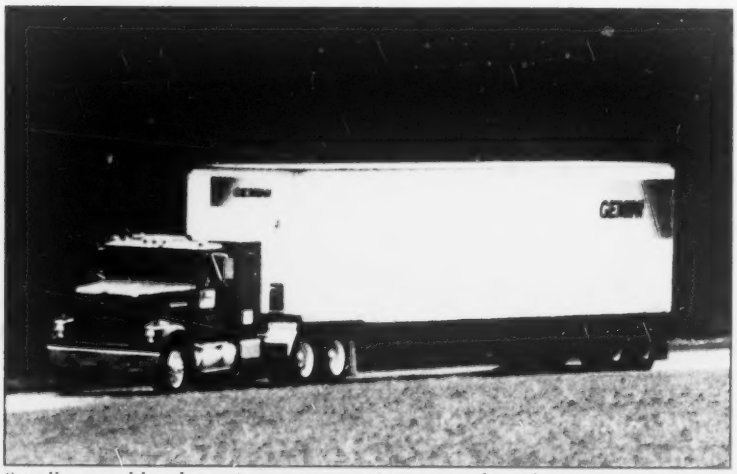
"This isn't a nice business anymore," admits a trucking manager who has participated in the development of the truckload industry over the past eight years. "The fun is gone. Trucking has become a fiercely competitive business in which a constant battle of lower rates determines who gets the freight."

Also gone are the days when truckload competitors have a gentlemanly respect for each other's major customers, says the trucking manager. While the warfare hasn't deteriorated to a personal level, it's hot and heavy on the business front. "The owners are still speaking to each other, but let's face the facts: They're stealing freight from each other, just like they're stealing drivers," he says.

"Let me put it this way: If you have some freight that fits my lane, I'm going to find out where it's coming from and I'm going to try to get it from you," he explains. "And I'm not going to ask your permission, either.

"If you know you're going to have 10 trucks in Dallas each day, not only can you accept loads on short notice, but you're in the position to become the house carrier for a lot of big companies," says Roberts. "These big shippers don't want to have to call 25 carriers to find one that has a truck

continued



Smaller truckload carriers must continue to seek niches
Big carriers have advantages that could mean rough going for others.

near Dallas, so it boosts your marketing leverage when you can tell that shipper you can give it five of those 10 trucks each day. You can charge a little premium because it only takes one call to move that shipper's Dallas freight."

The leading large carriers also have a significant edge in costs that translates into major advantages "vis a vis" their smaller counterparts when it comes to rates and lane balance.

"Because they're so low-cost, they can come and take freight wherever they need it," says Roberts. "If they need to cut their price to 85 cents to fill up a backhaul lane, they can do it and still charge $1.00 or $1.50 on the front end of the movement. In doing so, they can reposition their trucks in ways that smaller carriers can't."

Consequently, the pressure continues for smaller truckload carriers to seek profitable route-specific or product-oriented niche operations to remain competitive. Tailoring the operation may require raising some costs while lowering others, and adding some equipment here while taking it away from there.

"For some of these carriers, it looks like they are slowly trimming their way back to zero," says Roberts.

Larger carriers, with their generally larger staffs and more sophisticated systems, also should be better positioned than their smaller counterparts to absorb the expenses expected to be incurred by heightened state and federal truck safety enforcement efforts now being undertaken.

Access to capital also puts the larger carriers in the position to take advantage of satellite communication technology—a big plus in negotiating JIT contracts and other time-sensitive business. (Schneider ran full page ads in the *Wall Street Journal* late last year when the truckload carrier outfitted its fleet with the satellite devices.) While the economics of this technology may not be that compelling, it clearly can differentiate service in the eyes of the Sears or J.C. Penneys of the world.

Rates Increase Slightly

For the first time since deregulation, truckload rates in 1988 flattened out and even increased slightly virtually in all lanes with the exception of the long-haul, high-density lanes such as Los Angeles Oakland Seattle to Chicago and New York.

"The margins were getting squeezed to the point where trucking managers couldn't afford to do some of the things that needed to be done—like giving their drivers some more money—without taking a rate increase," he explains.

Another way to look at it is that the efficiencies brought into the business by deregulation have largely been realized, and it's getting to the point where carriers are starting to pass along some of their cost increases to maintain their margins and continue their growth.

But the industry price leaders, J.B. Hunt, Schneider and North American, clearly have their sights set on higher goals, and it remains to be seen whether rate stability will remain as Hunt and Schneider each add a thousand trucks or so to their fleets in 1989. "They'll have two choices," says Larkin: "To either seek new sources of freight or force these new trucks into their current lanes. If they're forced towards the latter alternative, rates are certain to take a hit, since they both are calling on the same customer."

A great deal of consternation has been created in some corners by the talk of a significant hike in the fuel tax in 1991. But any new tax would have to be pretty steep to affect the competitive positions of truckload and intermodal.

Besides, someone who gets six miles per gallon in his new Navistar 9700 or Freightliner Conventional will pay less than a penny a mile as a result of an additional nickel per gallon tax.

"I don't think there are too many shippers out there that are going to switch modes for less than a penny a mile," says Larkin. "There may be some sitting right there on the margin, but we generally don't start seeing some modal transfer until there's a nickel per mile difference."

Within the truckload business, however, a significant tax hike could further tighten the noose around the smaller, less capitalized carrier that may not be able to afford the fuel efficiency advantage available through new power equipment or new trailer configurations such as Western doubles or triple pups that might be approved in the next highway bill. For the smaller truckload carrier, the future promises some rough going. ■

CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE AUGUST 1989

©1989 Chilton Co.

LOGISTICS EXCELLENCE

AUGUST 1989

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 8

COVER STORY

30 QUEST FOR QUALITY

More and more shippers have realized that their competitiveness in the marketplace depends on the performance of the carriers they use. Most transportation managers today are choosing their carriers on the basis of strict quality measurements. DISTRIBUTION's Quest For Quality program is designed to encourage such measurements by shippers.

FEATURES

59 CASEBOOK: LEASING SOLUTIONS

68 THE EVOLUTION OF A QUALITY CAMPAIGN

Air Products & Chemicals has a sophisticated quality measurement system to deliver just what the customers order.

74 AT&T'S TRANSPORTATION QUALITY PROGRAM

Here's how the nation's leading telecommunications company emphasizes better communications with its carriers to improve total transportation quality.

84 HAVE THE GOOD TIMES ROLLED?

A slumping economy and upward cost pressures may put LTL and TL profits for 1989 into low gear.

103 A TEXTBOOK CASE OF ADDING VALUE

Here's how Betz uses logistics to make customers want to buy its chemicals.

106 SOFTWARE REVIEW: SHIPSMART LOGISTICS WITH VERSION 2.0

Software that helps shippers optimize inventory and transportation costs.

108 LOGISTICS TOOLS: HOW TO CALCULATE THE COST OF QUALITY

The cost of quality is a vital factor in measuring logistics performance.

DEPARTMENTS

4 EDITORIAL

13 LOGISTICS TRENDS

16 TRANSPORTATION REPORT

26 GLOBAL LOGISTICS REPORT

111 EQUIPMENT & TECHNOLOGY

112 DISTRIBUTION'S INFO HUB

114 DISTRIBUTION ADVISOR

117 DISTRIBUTION DOCKET

119 LITERATURE

128 MANAGEMENT

Next Month:
Linking Logistics to Corporate Goals

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

E.J. MULLER – Senior Editor (West Coast)
(415) 769-0884

THERESA M. STELTZER – Senior Editor
(215) 964-4381

SHARON STRUCKUS – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
STANLEY HOFFMAN (203) 790-4195
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 307-8808
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett Packard

STANLEY ROZYCKI
VP Transportation/Logistics
Federated Department Stores, Inc.

GARY M. THOMPSON
Director of Physical Distribution
Kraft Inc., Dairy Group

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1989. Subscription rate: U.S. and possessions, $55 per year. Canadian, $60. Foreign $80. Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

LOGISTICS

The nation's shippers select their quality carriers and vendors, those who set the standard for logistics excellence.

A Staff Report

© 1989 Chilton Co.

EXCELLENCE

Attitude. All things being equal – and even sometimes when all things aren't – shippers will select carriers based on their attitude toward the shipper's business.

"There are some carriers where, from the rate clerk, to the dispatcher, to the sales rep, to the president, their attitude is, 'How can we help you?' " says Donald Broughton, traffic analyst, Dr. Pepper 7-Up. "With other carriers it's like, 'Well, you've got a problem all right.' "

Dennis Tingle, distribution manager for A&W Brands, says attitude was a big reason he gave considerably lower marks to one national LTL carrier than its competitors. "I have found a definite attitude problem in that company," he says. "I am using them by necessity." Claims handling and shipment tracing, says Tingle, are two problem areas in which the carrier's approach alternates between "So what?" and "What are you bothering us for?"

Often the most visible evidence of the carrier's attitude is the way its salespeople respond to the shipper's questions and problems. "It's night and day with the salespeople I have to deal with," says Jeff Schubert, traffic manager at Filterite. "One carrier rep is available 24 hours a day if I need him. He has a car phone, a pager and an answering service. I get call backs, and results, within minutes. Most other salespeople evaporate if they know I have a problem."

Attitude was perhaps the most prominent theme among shippers contacted as part of DISTRIBUTION's sixth annual Quest For Quality program. More than 1,900 shippers participated in the 1989 program, rating the carriers they use regularly according to four key measurements of transportation quality: service, convenience, price and sales effectiveness. The scores on the following pages are based on shipper ratings ranging from 0 (unacceptable) to 5 (outstanding). A complete explanation of the survey's methodology appears on page 50.

In the six years that DISTRIBUTION has been conducting this survey, more and more shippers have realized that their competitiveness in the marketplace depends on the performance of the carriers they use. Because the carrier selection process is so important to shippers today, most transportation managers are choosing their carriers on the basis of strict quality measurements. DISTRIBUTION's Quest For Quality program is designed to encourage such measurements by shippers. In addition, Quest For Quality recognizes those transportation companies that have:

- Identified shippers' needs and developed truly innovative services to meet these needs.
- Performed these services reliably and consistently with essential follow-up.
- Trimmed operating costs to be able to offer the services at reasonable, affordable prices.
- Made doing business with them convenient.
- Sold their service after learning about the shipper's business.
- Kept customers informed about the transportation company's capabilities.

Our Quest For Quality program is also designed to educate the shipper. Logistics managers who appreciate total quality in their carriers and vendors make better buying decisions. They also better understand the importance to themselves and to the industry of dealing fairly and professionally with carriers.

DISTRIBUTION'S 1989 QUALITY CARRIERS

NATIONAL LTL CARRIERS
Consolidated Freightways
Roadway Express
Yellow Freight System

REGIONAL LTL CARRIERS
Northeast & Mid-Atlantic
A. Duie Pyle
Con-Way Eastern Express
Lyons Transportation
Preston Trucking

REGIONAL LTL CARRIERS
Midwest
Alvan Motor Freight
Arkansas Freightways
TNT Holland

REGIONAL LTL CARRIERS
Rocky Mountain West Coast
Con-Way Western Express
DiSalvo Trucking
NW Transport

REGIONAL LTL CARRIERS
Southeast
AAA Cooper
Averitt Express
Con-Way Southern Express
Saia Motor Freight
Southeastern Freight Lines

TRUCKLOAD CARRIERS
Dart Transit
Marten Transport
Schneider National
Werner Enterprises

FLATBED & SPECIALIZED TRUCKLOAD CARRIERS
Schneider National

BULK TRUCKLOAD CARRIERS
Schneider National

VAN LINES-HOUSEHOLD GOODS MOVEMENTS
United Van Lines

VAN LINES-SPECIALIZED DISTRIBUTION
United Van Lines

MAJOR RAIL SYSTEMS
Union Pacific Railroad

REGIONAL RAILROADS
Wisconsin Central

INTERMODAL OPERATORS & STACK TRAIN SERVICES
American President Intermodal

RAIL THIRD PARTIES
Clipper Exxpress
The Hub Group
Manufacturers Consolidation

PASSENGER/CARGO AIRLINES
Air France
Alaska Airlines
KLM Royal Dutch Airlines
Swissair Transport

CONVENTIONAL AIRFREIGHT FORWARDERS
Intertrans
Lynden Air Freight
Pilot Air Freight
Seko Air Freight

WATER CARRIERS
Act PACE
Columbus Line
Crowley Maritime-Amtrans
Hapag Lloyd
Maersk Line
Mitsui O.S.K.
NYK Line
OOCL
Trans Freight Lines

DEEP WATER PORTS
Charleston, S.C.
Oakland, Calif.
Savannah, Ga.
Seattle, Wash.
Tacoma, Wash.
Virginia Ports

DISTRIBUTION's designation of these companies as Quality Carriers means that each has received above average ratings in all four performance categories for its group. No company with a rating lower than 3.00 (just acceptable performance) in any category qualified as a Quality Carrier.

NATIONAL LTL CARRIERS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.30**	**3.31**	**3.23**	**3.03**
ABF	3.26	3.29	2.99	2.83
ANR	2.96	3.02	**3.28**	2.80
Brown Transport	2.87	2.91	**3.28**	2.67
Carolina Freight Carriers	3.24	3.20	3.07	2.87
Clipper Exxpress	2.98	2.89	2.96	2.89
Consolidated Freightways	**3.65**	**3.71**	**3.48**	**3.52**
Lifschultz Fast Freight	2.62	2.42	2.34	1.83
Overnite Transportation	**3.34**	3.22	**3.35**	2.92
P.I.E. Nationwide	2.91	2.96	3.05	2.70
Roadway Express	**3.47**	**3.50**	**3.30**	**3.13**
Skyway Freight Systems	**3.57**	3.26	2.74	2.86
Transcon Lines	2.88	2.92	2.98	2.70
Watkins Motor Lines	**3.41**	3.22	3.17	**3.03**
Yellow Freight System	**3.67**	**3.70**	**3.40**	**3.45**

REGIONAL LTL CARRIERS—NORTHEAST/MID-ATLANTIC				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.44**	**3.30**	**3.16**	2.98
AAA Trucking	2.96	2.79	3.05	2.72
APA Transport	3.31	3.09	2.97	2.84
A. Duie Pyle	**4.23**	**4.06**	**3.60**	**3.66**
Con-Way Eastern Express	**3.57**	**3.39**	**3.22**	**3.12**
Estes Express	**3.78**	**3.42**	3.05	2.83
Guaranteed Overnite Delivery	**3.53**	2.85	2.82	2.34
Holmes Transportation	3.24	3.20	**3.27**	2.84
Lyons Transportation	**3.46**	**3.30**	**3.28**	**3.46**
New England Motor Freight	3.13	2.82	2.93	2.59
New Penn Motor Express	**3.55**	**3.39**	2.98	**3.15**
North Penn Transfer	2.94	2.79	2.66	2.52
Preston Trucking	**3.65**	**3.58**	**3.41**	**3.35**
St. Johnsbury	3.34	**3.43**	**3.22**	2.89
TNT Red Star	3.34	**3.34**	3.07	**3.00**
Ward Trucking	**3.64**	3.19	**3.24**	2.77

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

LTL MOTOR CARRIERS

Scores for national LTL carriers have remained extremely consistent over the past several years. The Big Three again lead the way. "It's a strange phenomenon," says Dennis Tingle, distribution manager for A&W Brands. "They have so many terminals, so many trucks on the road, that they can perform services in areas that smaller carriers can't. The fact that they are so big, they're always in the public spotlight, and they have big advertising budgets, they pop into our (shipper's) collective minds more easily."

A key factor mentioned by many shippers is the carrier's response to problems. Don Broughton, traffic analyst for Dr. Pepper 7-Up, gave one carrier all 5s, another all 0s. One carrier "seems to be befuddled all the time. They inevitably screw up nine out of 10 bills, and that takes up a rate clerk's time." The other carrier doesn't make many mistakes, "but when they do, they fall all over themselves trying to correct it."

Tingle tells the story about a driver for a big national carrier who waited until Tingle was away answering the phone before unloading a damaged piece of freight and then surrounding it with undamaged cartons. Tingle, who had been supervising the unloading process, counted the cartons and then signed for the shipment. He was furious when he discovered what had happened, and when several months passed before a claim was settled, he vowed not to use the carrier if he could help it.

Another carrier Tingle uses "isn't afraid to admit it made a mistake." When a problem does occur, he is able to work with the carrier to correct it. Ultimately, this is a far better policy. Says Tingle: "I don't like to be blindsided by one of my customers or by someone from corporate in New York, who hears about a problem and then calls me up and says, 'Why weren't you on top of this?' "

REGIONAL LTL CARRIERS – MIDWEST				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.65**	**3.43**	**3.27**	**3.11**
Advance Transportation	3.45	3.28	**3.39**	2.83
Alvan Motor Freight	**4.00**	**3.58**	**3.37**	**3.26**
Arkansas Freightways	**3.95**	**3.66**	**3.67**	**3.31**
Central Transport	3.37	3.16	**3.32**	2.96
Churchill Truck Lines	3.53	3.32	3.12	3.01
Con-Way Central Express	**4.15**	**3.79**	3.16	**3.39**
Fore Way Express	3.59	3.39	**3.34**	**3.27**
Gross Common Carrier	3.56	3.37	3.23	3.05
Hyman Freightways	3.32	3.15	3.18	**3.11**
Jones Transfer	3.09	3.03	2.88	2.38
Jones Truck Lines	3.45	3.38	3.20	3.07
O.K. Trucking	3.32	3.12	3.06	2.83
TNT Holland	**4.12**	**3.84**	**3.43**	**3.35**

REGIONAL LTL CARRIERS – SOUTHEAST				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.60**	**3.43**	**3.34**	**3.13**
AAA Cooper	**3.69**	**3.53**	**3.37**	**3.22**
Averitt Express	**4.18**	**3.72**	**3.36**	**3.49**
Con-Way Southern Express	**3.87**	**3.61**	**3.50**	**3.27**
Old Dominion Freight	3.27	3.30	**3.43**	**3.14**
Sala Motor Freight	**3.83**	**3.60**	**3.40**	**3.23**
Smalley Transportation	2.91	2.91	2.91	2.55
Southeastern Frt. Lines	**4.06**	**3.77**	**3.43**	**3.36**
Spartan Express	3.32	3.20	3.25	2.96
Standard Trucking	3.51	**3.43**	3.28	3.08
Transus	3.45	3.41	**3.43**	**3.13**

REGIONAL LTL CARRIERS – SOUTH CENTRAL				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.52**	**3.37**	2.74	2.46
Central Freight Lines	**3.67**	**3.46**	2.55	2.33
Merchants Fast Motor Frt.	**3.55**	**3.43**	2.95	2.55
Red Arrow Freight Lines	3.06	3.03	2.84	2.63

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

LTL MOTOR CARRIERS

There is a down side to bigness, and shippers are quick to point out the advantages of regional carriers. For example, large carriers lack the flexibility of their regional brethren. Dennis Tingle, distribution manager for A&W Brands, says that he routes unusually time-sensitive shipments to smaller carriers he knows will give him more personalized service.

"They know they're competing against the Big Three," he says, "and they try a little harder." They're also charging more, but that doesn't seem to bother shippers; pricing scores are up. The notion that shippers are willing to pay more for better service may go beyond lip service.

"One of our carriers has fantastic pricing and adequate service, the other has adequate pricing and fantastic service. *They* get the business," says Don Broughton, traffic analyst for Dr. Pepper/7-Up. "All the bottom line chopping in the world doesn't help me if a plant manager calls the vice president of operations because his raw materials aren't there. I may have saved him $300 on the move, but he doesn't want to hear it."

Carriers also seem to be progressing in the quality of their sales efforts. "Old school people used to throw a routing guide on your desk and say, 'What can I do for you?' " says Lynda Neumann, supervisor, distribution services for Betz Entec. "Or a guy would call on me one day, and the next day he'd be back, working for a different carrier. How much can he know about that carrier's service? But salesmen today are much better trained and more professional."

While many shippers agree with Neumann, others lodge seemingly perennial complaints. "I don't have contempt for (sales reps), in fact I respect them," says Don Broughton. "But 90 percent of the time I have to educate them. I have to ask them what lanes *they* need filled."

REGIONAL LTL CARRIERS – ROCKY MOUNTAIN/WEST COAST				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.51**	**3.37**	**3.09**	2.92
Con-Way Western Express	**3.73**	**3.59**	**3.30**	**3.00**
DiSalvo Trucking	**3.51**	**3.43**	**3.36**	**3.11**
Edson Express	3.26	3.04	**3.11**	2.48
G.I. Trucking	3.01	2.92	2.89	2.58
NW Transport Service	**4.07**	**3.88**	**3.53**	**3.54**
Superior Fast Freight	3.23	2.95	2.59	2.50
TNT Bestway	3.11	3.19	3.06	2.71
Viking Freight	**3.65**	**3.50**	2.94	2.95

LTL CARRIERS – CANADA/U.S. TRANSBORDER				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.47**	**3.29**	**3.22**	2.83
Chi-Can Forwarding	3.43	**3.40**	**3.51**	2.86
Inter-City Truck Lines	**3.54**	3.21	3.17	2.96
Kingsway Transport	3.39	**3.36**	3.11	2.86
TNT Overland Express	**3.54**	3.17	3.06	2.68

SURFACE EXPRESS CARRIERS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.33**	**3.33**	**3.25**	2.11
Roadway Package System	3.00	3.29	**3.62**	**3.00**
United Parcel Service	**3.82**	**3.67**	**3.37**	2.22
U.S. Postal Service	2.64	2.71	2.80	1.22

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

LTL AND EXPRESS CARRIERS

This is the first year Quest For Quality has broken out LTL carriers by region, so trend spotting is dangerous. Still, there were differences in scores among the regions; carriers in the South and the Midwest generally scored higher than did carriers in the Northeast.

Some shippers feel this is indeed a reflection of the region's way of doing business. "I prefer to deal with the southern motor carriers. They seem to have that southern hospitality," says Lynda Neumann, supervisor, distribution services for Betz Entec, which has a distribution center in Memphis. With a southern carrier, she says, "I can deal with a small terminal in Texas and get the same service and attention there as I do in Memphis, where they know us."

"I love doing business with the carriers in the South because they don't get excited about too much," adds Dennis Tingle, distribution manager for A&W Brands in Modesto, California. "Of course, sometimes I'd like them to get a *little* more excited...." Most shippers, however, assign regional differences to two factors: geographics and demographics. Dan Suarez, transportation manager, Intelligent Electronics, puts it quite succinctly: "Have you ever been to New York? *I'd* never want to drive there."

The battle in the highly competitive surface express category continues. Getting a fix on the dogfight between these carriers is tough, though. Suarez says the service with one carrier is not much better than that of another. One of his carriers does have bar coding, which makes it easier to track and trace shipments when they get lost – and his get lost just as often with one carrier as the other. One carrier also offers him a discount, and its sales people are more professional, more knowledgeable, and respond quicker to questions and concerns, he adds.

TRUCKLOAD MOTOR CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.40**	**3.31**	**3.21**	2.77
Anderson Trucking	**3.50**	3.11	**3.28**	2.44
CRST	3.16	2.97	3.17	2.68
CX Roberson	3.38	3.00	2.64	1.70
Carretta Trucking	**3.46**	3.30	2.46	2.77
Contract Freighters	**4.21**	**3.62**	3.00	2.93
Country Wide Truck Service	2.71	2.50	**3.31**	2.11
Crete Carriers	**3.68**	**3.33**	3.19	2.81
Dart Transit	**3.65**	**3.52**	**3.45**	**3.29**
Frederick Transport	**3.46**	3.09	**3.58**	2.62
Freymiller Trucking	**3.70**	3.20	**3.70**	2.92
Gemini Transportation	3.00	3.00	**3.24**	2.17
Heartland Express	**3.40**	3.13	3.13	**3.20**
Independent Freightways	2.95	3.05	2.75	2.62
J.B. Hunt	**3.56**	**3.46**	**3.39**	2.91
Leaseway Transportation	2.80	2.88	3.00	2.20
Missouri Nebraska Express	**3.50**	**3.56**	**3.47**	2.84
M.S. Carriers	**3.63**	**3.33**	2.84	2.92
Marten Transport	**3.47**	**3.36**	**3.29**	**3.19**
McClendon Trucking	**3.60**	**3.63**	3.10	**3.00**
Munson Transportation	**3.43**	**3.35**	3.19	2.95
National Freight	3.08	**3.64**	2.92	2.52
P.A.M. Transport	3.37	**3.47**	**3.58**	2.56
Ranger Transportation	**3.60**	**3.53**	3.05	2.67
Riss International	**3.50**	3.11	3.11	2.91
Roadrunner Trucking	3.27	3.24	**3.38**	2.57
Ryder Freight System	2.71	2.90	2.90	2.14
Schneider Transport	**3.65**	**3.62**	**3.46**	**3.52**
Stoops Express	3.26	3.17	**3.26**	**3.08**
Tri-State Motor Transit	3.18	**3.36**	3.00	1.67
Werner Enterprises	**3.55**	**3.54**	**3.57**	**3.16**
Whiteford Truck Lines	3.29	3.06	3.00	2.72

FLATBED AND SPECIALIZED CARRIERS

	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.58**	**3.36**	**3.19**	2.79
Builders Transport	**3.62**	**3.46**	**3.26**	2.85
Jones Motor	**3.83**	3.17	3.00	2.43
Ligon Nationwide	3.06	3.00	2.81	2.53
PFT Roberson	**4.00**	3.33	**3.56**	2.80
Schneider National	**3.73**	**3.67**	**3.33**	**3.14**

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

TRUCKLOAD CARRIERS

High service is what shippers expect from TL carriers. "If I don't get my cotton every day on time, my plant shuts down," says Jeff Schubert, traffic manager of Filterite. "I'm very careful about how I pick these companies." The demanding attitude of shippers is reflected in the gulf between outstanding scores for so-called high service carriers and fairly low scores given to other truckload carriers.

"We have to use the larger TL carriers because they have enough equipment for us and they have better control over their whole business," says William G. Ditoro, director of transportation for Nabisco Brands. "That makes these carriers easier for us to manage. No large shipper these days has enough staff to look at many small carriers on a lane-by-lane basis."

Mary Lou Halsey, traffic manager for American Moulding & Millwork, says she knows how to pick the good TL carriers from the also-rans. "If you can consistently get 24-hour pickups at the end of the month from a TL carrier, you can be sure it knows how to provide service," she says.

Schubert has his own criteria. "Our inbound traffic comes from many remote origins, so we look for truckload carriers that can provide wide coverage," he says. "That generally means using large carriers with equipment all over the country. I'm not interested in carriers that just focus on the big origin points."

In the flatbed sector, equipment supply is the key concern. "The main reason we would drop a carrier is failure to supply equipment it has committed to," says Gary Daniska, transportation consultant for McDermott Inc. "There are only a few flatbed operators that can consistently follow through on their promises of equipment where and when we need it. These carriers get practically all of our business."

VAN LINES – HOUSEHOLD GOODS CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.75**	**3.72**	**3.63**	**3.56**
Allied Van Lines	3.61	3.58	**3.65**	3.42
Atlas Van Lines	**3.92**	**3.85**	3.38	**3.77**
Bekins Van Lines	3.45	3.55	3.27	3.50
Mayflower Transit	3.60	3.07	3.40	2.87
North American Van Lines	3.48	3.64	**3.76**	3.55
United Van Lines	**4.11**	**4.07**	**3.64**	**3.63**

VAN LINES – SPECIALIZED DISTRIBUTION CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.73**	**3.75**	**3.44**	**3.21**
Allied Van Lines	3.54	3.31	3.31	2.31
Bekins Van Lines	3.40	**3.80**	3.40	3.10
Mayflower Transit	**3.89**	**3.78**	3.33	2.89
North American Van Lines	3.63	**3.77**	**3.50**	**3.46**
United Van Lines	**4.13**	**3.94**	**3.47**	**3.44**

TEMPERATURE-CONTROLLED CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.40**	**3.16**	2.87	2.63
Frozen Food Express	3.20	3.00	2.60	2.80
KLLM	**4.00**	**3.70**	**3.09**	2.73

BULK CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.62**	**3.55**	**3.13**	2.86
Chemical Leaman	3.59	**3.57**	3.10	2.59
DSI Transports	**3.75**	3.43	**3.29**	**3.13**
Groendyke Transport	3.60	3.50	2.50	**3.00**
Matlack	3.28	3.29	2.65	2.52
Montgomery Tank Lines	3.10	3.20	**3.20**	2.20
Schneider National	**4.27**	**4.00**	**3.90**	**3.73**

CRITICAL SHIPMENT CARRIERS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**4.21**	**3.80**	2.95	2.91
PST, Inc.	3.00	3.15	**3.38**	**3.00**
Roberts Express	**4.58**	**4.14**	2.74	2.95

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

TRUCKLOAD CARRIERS

Van lines know how to please shippers. Household goods carriers enjoy the highest overall scores of any Quest For Quality category.

"Household goods are emotional freight," says William G. Ditoro, director of transportation for Nabisco Brands. "The carriers know that tempers will flare if the service is not perfect." The sales scores for the HHG carrier groups are the highest recorded in our entire survey. "All the people I deal with at the HHG carriers are very aggressive and stay on top of a problem until it is taken care of," says Ditoro. The real secret of these carriers, Ditoro says, is the strong "back room" people he talks to on the phone but never sees. "The customer service people at these carriers know how to make things happen to solve problems immediately. I usually don't have to see a salesperson. If one shows up in my office, I know there's a problem."

"There is probably more difference in overall quality among the van lines in the general freight business than any other type of transportation," says Gary Daniska, a consultant for McDermott Inc. "A few carriers are terrific on pickups. Others are more interested in filling up their vans than in providing service."

The highest service numbers reported by shippers go to a select group of critical shipment carriers which specialize in immediate pickups and dedicated vehicles.

"When my boss tells me on Friday afternoon to 'work a miracle,' these are the guys I call," says Jack Reddy, director of transportation for PMI Food Equipment. "One-third of our business is special order machines, and every once in a while a little slip in the production schedule puts our backs against the wall on a shipment the customer must have immediately. These carriers will get your chestnuts out of the fire – for a price."

MAJOR RAIL SYSTEMS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.19**	**3.02**	2.86	2.68
Burlington Northern	**3.77**	**3.56**	**3.25**	2.88
CSX	2.96	2.83	2.90	2.78
Canadian National	3.11	2.95	2.63	2.85
Canadian Pacific	3.18	3.00	2.88	2.98
Chicago & North Western	2.92	2.77	2.70	2.34
Conrail	**3.47**	**3.04**	2.75	2.43
Denver & Rio Grande	**3.40**	**3.25**	2.95	2.82
Grand Trunk Western	3.00	2.94	2.91	2.41
Illinois Central	2.68	2.63	2.74	2.00
Norfolk Southern	**3.22**	**3.07**	2.67	2.96
Santa Fe Railway	**3.44**	**3.13**	2.84	2.81
Soo Line/Milwaukee Road	2.96	2.80	**3.03**	2.70
Southern Pacific	2.72	2.67	2.59	2.29
Union Pacific	**3.39**	**3.37**	**3.07**	**3.02**

REGIONAL RAILROADS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.16**	**3.05**	2.94	2.43
Boston & Maine	1.25	1.68	1.76	0.65
Delaware & Hudson	1.52	1.78	1.96	1.05
Florida East Coast	**4.10**	**3.81**	**3.41**	2.96
Green Bay & Western	**3.35**	**3.31**	**3.06**	2.69
Iowa Interstate	**3.23**	3.04	**3.29**	2.15
Kansas City Southern	**3.23**	**3.05**	2.84	2.80
Midsouth Rail	**3.35**	**3.16**	**3.05**	2.68
Montana Rail Link	**3.36**	**3.10**	**3.20**	2.33
Wisconsin Central	**3.91**	**3.68**	**3.51**	**3.24**

RAILCAR BUILDERS & LESSORS	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.39**	**3.30**	**3.19**	**3.27**
ACF	**3.79**	**3.52**	3.04	**3.35**
GATX	**3.54**	**3.35**	**3.38**	3.19
GE Railcar	3.07	2.96	3.03	**3.28**
Itel/Pullman	3.00	3.25	3.13	3.20
Trinity	2.89	3.00	**3.44**	2.89
Union Tank Car	**3.47**	**3.44**	3.11	3.22

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

RAIL CARRIERS

Shippers want convenient transit times and on-the-spot rate commitments from the major rail carriers. "The smaller railroads are particularly good about giving you instant rates," says Andrew Moriarty, transportation manager for Wickes Lumber Co. "There is none of the bureaucracy and long delays that the railroads have long been known for."

While several carriers received high scores, especially for service, average scores in all categories were lower than last year's. Debera Hinchy, buyer of transportation services for Inland Steel Co., says this downward trend has been going on for about a year. "The railroads do not have the resources or manpower to meet the needs of their customers," she says.

Moriarty praises those railroads with specialists in each major market or commodity. "I'd like to see all railroads operate their pricing and marketing this way," he says.

The most notable decline in our survey was in pricing. Shippers generally perceive a value gap between the prices they pay and the service they receive. "We don't feel like competitive pricing is there the way we do with trucking," says Dennis Todd, traffic manager, wood products for the Federal Paper Board Co.

This is the first year DISTRIBUTION broke out results for regional rail carriers. Scores varied widely, indicating great differences in shipper satisfaction with this burgeoning industry. "The desire is there to do their job well, but most need more people and equipment to do the job we want," says Leanna Simmons, rail coordinator for Petrolane.

Railcar builders and lessors also experienced lower overall scores this year. Hinchy says this could be due to tightness in the car market. "Often equipment was not available or in the condition we are used to," she says.

INTERMODAL OPERATORS & STACK TRAIN SERVICES				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	***3.34***	***3.13***	***3.30***	*2.72*
Am. President Intermodal	***4.12***	***3.78***	***3.52***	***3.48***
Burlington Northern	***3.50***	*3.12*	*3.12*	*2.62*
CSL Intermodal	***3.35***	***3.25***	*3.15*	*2.93*
Hanjin Lines	*2.58*	*2.31*	***3.38***	*2.38*
Iowa Interstate	*2.70*	*2.30*	*3.10*	*1.80*
Rail Bridge (K Line)	*3.00*	*2.83*	*3.16*	*2.47*
Maersk	*3.28*	***3.32***	*3.79*	*2.82*
Mitsui O.S.K. Lines	*2.83*	*2.17*	*3.08*	*1.77*
NYK Line (Centex)	*2.88*	*2.63*	***3.71***	*1.76*
OOCL	*3.00*	*3.07*	*3.14*	*2.21*
Santa Fe	***3.44***	***3.36***	*3.24*	***3.12***

RAIL THIRD PARTIES				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	***3.08***	*2.96*	*2.96*	*2.72*
Am. President Dist. Services	***3.12***	***3.00***	***3.04***	*2.93*
Alliance Shippers	*2.76*	*2.63*	*2.84*	*2.27*
CF Truckload Service	*3.00*	*2.70*	*2.55*	*1.82*
Clipper Exxpress	***3.36***	***3.25***	***3.17***	***3.17***
Genex Terminals	*3.00*	***3.18***	*2.64*	*2.55*
Greater South Traffic	***3.16***	*2.76*	***3.04***	*2.88*
The Hub Group	***3.67***	***3.77***	***3.43***	***3.36***
ITOFCA	*3.26*	*3.28*	*3.07*	*2.88*
Manufacturers Consolidation	***3.71***	***3.63***	***3.63***	***3.56***
Riss International	*2.73*	*2.30*	*2.80*	*2.30*

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

RAIL CARRIERS

Intermodal operators have been healthy from a service standpoint, with more services being provided nationwide. Jay Farrell, director of logistics for CPC International, hopes that intermodal continues to evolve, because he believes it will become the primary mode of transportation for merchandise traffic in the future.

For third parties moving product on a door-to-door basis, scores remain significantly higher than for the railroads themselves. "Railroads don't seem to have as much knowledge about selling their services as do the third parties," says Farrell. He sees the third parties as specialists in selling. "They're more innovative and seem to know the marketplace better than the railroads do."

John Colasso, manager of international transportation for Nestle Trading Corp., gives high marks to the few rail third parties doing a good job. "Today, for a third party to survive, it needs a high quality of service, the ability to negotiate contracts with the railroads and with the origination and destination truckers, and a staff capable of monitoring schedules for shippers," he says.

Shippers also say flexibility is a key factor. "Most railroads don't offer competitive piggyback rates, but third parties do," says Donna Gault, transportation manager for Treesource. "They look at all the possible ways of doing the job and they work very hard at a competitive agreement, because they're competing against another third party to get the business."

Colasso believes that rail consolidators are trying to emphasize that the scheduled service is there and that you can move freight by rail as if it were a truck service. "The more and more sophisticated the rail system becomes, the more efficient and economical the piggyback rates will be," he says.

PASSENGER/CARGO AIRLINES

	SERVICE	CONV.	PRICE	SALES
AVERAGE*	***3.39***	***3.32***	***3.23***	*2.55*
Air Canada	*3.05*	*3.20*	*3.15*	*1.85*
Air France	***3.61***	***3.44***	***3.56***	***3.11***
Alaska Airlines	***4.20***	***3.90***	***4.10***	***3.30***
Alitalia	*2.80*	*2.90*	*3.10*	*2.20*
American Airlines	***3.41***	***3.49***	***3.34***	*2.71*
British Airways	*3.32*	*3.05*	*2.95*	*2.28*
Continental Airlines	*2.52*	*2.60*	*3.12*	*1.96*
Delta Airlines	***3.90***	***3.67***	***3.27***	*2.73*
Eastern Airlines	*2.91*	*3.27*	*3.06*	*2.33*
Japan Air Lines	***4.00***	***3.56***	***3.65***	*2.81*
KLM	***3.92***	***3.54***	***3.42***	***3.17***
Korean Airlines	*3.36*	***3.64***	***3.27***	*2.45*
Lufthansa	***3.97***	***3.79***	***3.47***	*2.94*
Northwest	*2.91*	*2.75*	*2.78*	*1.53*
Pan American	*1.85*	*2.58*	*2.25*	*1.83*
Piedmont	*3.30*	*3.30*	*3.13*	*2.50*
Qantas	*3.30*	*3.10*	***3.30***	*2.60*
SAS (Scandinavian Airlines)	***3.58***	***3.42***	*3.00*	*2.50*
Swissair Transport	***4.17***	***4.08***	***3.83***	***3.33***
TWA	*3.26*	*3.19*	***3.27***	*2.39*
United Airlines	***3.45***	*3.35*	*3.20*	*2.54*
USAir	*3.38*	*3.10*	*2.72*	*2.21*

ALL CARGO AIRLINES/FORWARDERS WITH AIRCRAFT

	SERVICE	CONV.	PRICE	SALES
AVERAGE*	***3.53***	***3.52***	***3.20***	*2.62*
Airborne Express	*3.43*	*3.38*	***3.35***	*2.27*
Burlington Air Express	*3.23*	*3.19*	*3.20*	***3.01***
CF AirFreight	*3.36*	*3.40*	*3.22*	***3.45***
Emery Worldwide	*2.87*	*3.09*	*2.91*	*2.34*
Federal Express	***4.34***	***4.21***	*3.08*	*2.75*
Flying Tigers	*3.08*	*2.99*	*3.10*	*2.55*
Nippon Cargo Airlines	*3.36*	*3.09*	*3.27*	*2.60*
United Parcel Service	***3.75***	***3.75***	***3.56***	*2.16*

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

AIR CARRIERS

Combination passenger/cargo carriers showed an upswing in pricing and sales scores this year. Airline sales forces are doing more direct selling to shippers, but shippers aren't yet convinced that the airlines are ideal partners.

"Some airlines just pay lip service to quality," says Jim Davis, traffic manager for Spectradyne, Inc. "They sell a time-definite service without systems really geared for it. They may be able to offer the real thing soon, but now it's mostly hype."

The all-cargo airlines and forwarders with aircraft group has maintained consistently high levels of service. The absence of a Quality carrier in this group is due, no doubt, to the price shippers pay for these premium services. But nobody complains too much about the service. "When we have to have something, that's all there is to it," says David Reinerth, traffic supervisor for GMF Robotics. "We pay the price."

Still, price is a sticking point. "If they can't compete with the top air express carriers on service," says Michael Flagg, distribution manager, Aster Publishing Corp., "then they'd better drop their prices."

One thing everybody agrees on is that this group has turned up the heat on its sales efforts. "Six months ago it seemed like every rep was calling at once," recalls Flagg. Some well-established companies, though, scored low in sales. "There's not much need to see a sales rep," says Ken Henin, distribution manager, Newell Home Hardware, "if the service speaks for itself."

Frequent airfreight users recommend looking beyond the sales force to determine a carrier's quality. "I've been to the hubs," Davis notes, "and I've seen the equipment and the attitudes. I want to know that the people who have their hands on my freight, not the ones shaking my hand, care about their work."

CONVENTIONAL AIRFREIGHT FORWARDERS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	***3.32***	***3.16***	***3.01***	*2.86*
Air Express Int'l/Pandair	*3.29*	*2.90*	*2.92*	*2.88*
Amerford Int'l	*2.81*	*2.70*	*2.85*	*2.48*
Associated Air Freight	***3.45***	***3.27***	*2.82*	*2.45*
Circle Air Freight	*3.20*	*3.09*	*2.83*	*2.50*
Danzas Air	*2.73*	*2.55*	*2.09*	*2.09*
Fritz Airfreight	*3.17*	***3.25***	*2.67*	***3.25***
Intertrans	***3.92***	***3.92***	***3.23***	***3.46***
Kintetsu World Express	***3.63***	***3.54***	***3.25***	*2.96*
Kuehne & Nagel	*2.83*	*2.57*	*2.87*	*2.35*
LEP/Profit Freight System	*3.18*	*3.08*	***3.30***	***3.00***
Lynden Air Freight	***4.06***	***3.94***	***3.76***	***3.65***
MSAS Cargo Int'l	***3.40***	***3.20***	***3.35***	*2.90*
Nippon Express	*3.12*	*3.13*	*2.81*	***3.06***
Northern Air Freight	*3.00*	*2.96*	*2.96*	*2.71*
Panalpina	*3.26*	***3.17***	*2.77*	*2.43*
Pilot Air Freight	***3.55***	***3.37***	***3.17***	***3.21***
Right-O-Way, Inc.	*3.13*	*3.00*	*2.73*	*2.73*
Schenkers	*2.83*	*2.72*	*2.22*	*2.22*
Seko Air Freight	***4.03***	***3.87***	***3.81***	***3.77***
Skyway Freight System	*3.24*	*2.76*	*2.31*	*2.07*

AIR EXPRESS CARRIERS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	***3.54***	***3.49***	***3.22***	*2.45*
Airborne Express	*3.42*	*3.36*	***3.44***	*2.42*
Burlington Air Express	*3.13*	*3.29*	*3.04*	*2.90*
DHL	***3.58***	***3.49***	*3.19*	*2.82*
Emery Worldwide	*2.99*	*3.07*	*3.00*	*2.31*
Federal Express	***4.37***	***4.19***	*3.21*	*2.86*
TNT Skypak	*3.17*	*2.97*	*2.89*	*2.80*
United Parcel Service	***3.83***	***3.80***	***3.52***	*2.33*
U.S. Postal Service	*2.72*	*2.68*	*3.04*	*1.43*

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

AIR CARRIERS

Airfreight forwarders proved to be an erratic bunch. For high-volume shippers like Spectradyne, forwarders are becoming obsolete. "I have better access to information than they do," maintains Traffic Manager Jim Davis. "Most aren't equipped to provide the level of service I need."

For smaller shippers, however, the forwarder is still invaluable, and the sales force is vital. David Reinerth, traffic supervisor for GMF Robotics, used to think that a particular forwarder was superior, "but now I think it's the sales rep. If she changed companies, I'd switch with her. She's been a great help, and I trust her completely."

Shippers using forwarders want one thing above all else: simplicity. More than ever, that means trimming the paperwork trail. "We were using one forwarder for most of our international business," says Ken Henin, distribution manager, Newell Home Hardware, "but we had to drop it because it just couldn't handle the paperwork. If they can't do that, what else is there?"

The forwarders that score well are expert at being indispensable to airlines and shippers alike. Shippers are only willing to pay the markup the forwarder lives on if the forwarder makes life easier for them. "Considering the prices they charge," says Davis, "I should never have to hear excuses. When they start blaming the airlines, I show them the door."

Results for air express carriers parallel forwarders with aircraft because many players are the same. Shippers are satisfied with the service quality, but only grudgingly pay the price.

In the other categories, it's a matter of priorities. Whatever your greatest need—computerized tracing, expansive ground pickup and delivery networks, strategically located hubs, personalized service—one of these companies will be able to fill it.

STEAMSHIP LINES				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.51**	**3.39**	**3.31**	**3.12**
ACT/Pace Line	**3.79**	**3.75**	**3.37**	**3.30**
American President Lines	**4.26**	**3.83**	2.98	**3.47**
Atlantic Container Line	**3.59**	**3.41**	3.03	3.00
Canada Maritime	3.50	**3.56**	**3.33**	2.61
Cast North America	2.53	2.60	3.00	2.63
Columbus Line	**4.05**	**3.95**	**3.55**	**3.76**
Crowley Maritime Amtrans	**3.62**	**3.62**	**3.38**	**3.14**
Crowley Maritime TMT	3.29	**3.43**	3.29	2.87
Evergreen Lines	3.29	3.20	**3.66**	2.64
Farrell Lines	3.19	3.31	**3.31**	**3.47**
Hanjin Container Lines	3.14	2.95	**3.55**	2.82
Hapag Lloyd	**3.89**	**3.72**	**3.36**	**3.32**
Ivaran Line	**3.60**	**3.50**	3.00	**3.33**
K Line	**3.61**	3.29	**3.33**	**3.47**
Lykes Lines	**3.58**	3.26	3.05	**3.15**
Maersk Line	**4.00**	**3.79**	**3.31**	**3.47**
Matson Navigation	**4.22**	**3.89**	3.11	3.00
Mitsui O.S.K.	**4.00**	**3.76**	**3.76**	**3.94**
NYK Line	**4.11**	**3.95**	**3.89**	**3.89**
Navieras de Puerto Rico	3.38	3.31	2.50	2.56
Nedlloyd Lines	3.50	3.20	**3.35**	**3.38**
OOCL	**3.70**	**3.53**	**3.63**	**3.37**
Polish Ocean Lines	**3.78**	**3.78**	**3.94**	2.94
Sea-Land Service	**3.63**	**3.49**	3.19	**3.38**
Trans Freight Lines	**3.59**	**3.53**	**3.88**	**3.28**
Waterman Steamship	3.25	3.25	3.08	3.08
Zim Container Service	3.40	3.20	3.15	2.86

NORTH AMERICAN PORTS				
	SERVICE	CONV.	PRICE	SALES
AVERAGE*	**3.61**	**3.65**	**3.32**	2.97
Baltimore, MD	**3.63**	**3.88**	3.15	**3.08**
Charleston, SC	**3.70**	**3.81**	**3.58**	**3.12**
Houston, TX	3.17	3.39	2.88	2.36
Jacksonville, FL	**3.69**	**3.77**	**3.33**	2.44
Long Beach, CA	**3.61**	**3.70**	3.13	2.68
Los Angeles, CA	**3.81**	**3.88**	**3.43**	2.81
New Orleans, LA	3.47	3.44	3.24	2.75
New York & New Jersey	3.33	3.42	2.94	2.83
Oakland, CA	**4.00**	**4.00**	**3.42**	**3.08**
Portland, OR	3.40	2.83	3.20	2.80
Savannah, GA	**3.80**	**3.65**	**3.48**	**3.25**
Seattle, WA	**3.94**	**4.11**	**3.88**	**3.47**
Tacoma, WA	**4.38**	**3.77**	**3.92**	**3.90**
Virginia Ports	**3.68**	**3.74**	**3.59**	**3.41**

** Averages calculated on basis of data for all carriers in category, not just those listed. Average or above average scores over 3.00 appear in boldface.*

WATER CARRIERS

Shippers today want carriers that can handle both ends of the ocean move. "For us, the key is now door-to-door," says Gil Forness, director of traffic for Mattel Toys. "We look at the whole landbridge move, including the speed of clearance, handling of documents, rail connections and whether or not the line will top stow cargo. If the line says the cargo will be in on Sunday but it doesn't clear the yard until Wednesday, that's not what I call door-to-door service."

That can be a real problem for an industry like apparel retailing. Emily Rodriguez, director of transportation for Esprit de Corp, says service often breaks down at the back end. "The ships get there, and they're on time," she says, "but sometimes it's hard to get your freight, or you don't get an arrival notice, and there's no follow-up service. We're time-sensitive, and stuff like that kills you."

Shippers also are looking for innovation. For example, Schwinn Bicycle Co. recently became the fourth company to tie directly into one steamship line's mainframe computer data network. Schwinn Import/Export Coordinator Kyra Boydston was so impressed with the system that she rated the carrier above the other six steamship lines she uses regularly.

Many critical aspects of cargo movement fall to carriers, not ports, making it hard for shippers to assess a port's performance. Most look for fast intermodal connections, productive labor and good carriers with dependable sailing schedules.

Jack Kooser, manager of distribution services, Durkee Industry Foods, says of port sales efforts: "Ports should put out a newsletter containing the number of lines calling and what percentage berthed and sailed on schedule. It would help shippers gain confidence in them. The port that does it first will have the pack following them."

METHODOLOGY

DISTRIBUTION's *Quest For Quality* survey is a rating of transportation service and equipment companies by the shippers who use them regularly.

The data was gathered from questionnaires containing the names of major carriers or vendors of each mode of transportation service. Each questionnaire also included space for write-ins. The questionnaires were bound into monthly issues of DISTRIBUTION as follows:

January—LTL Motor Carriers and Surface Express Companies
February—Air Freight Carriers, Forwarders and Air Express
March—Water Carriers and Ports
April—Rail Carriers, Third Parties, Intermodal Operators and Railcar Lessors
May—TL and Specialized Motor Carriers

Each of the 1,901 questionnaires received was reviewed for legitimacy. No photocopies were accepted, and only questionnaires on which the respondent identified him or herself and the company were counted. A total of 405 questionnaires were rejected because they were photocopies, carrier-initiated or otherwise not in compliance.

A total of 1,496 questionnaires qualified completely. Each of these was coded according to state and standard industry code.

DISTRIBUTION asked respondents to rate the carriers and vendors they use in the following performance categories:

- *Service—transit times, routing and equipment*
- *Convenience—billing, tracing, EDI, claims settlement*
- *Price—rate levels and fairness, contract price levels and terms*
- *Sales—salesperson's knowledge of their company's capabilities and the customer's needs.*

Shippers rated carriers they use regularly on a scale of 0 (unacceptable) to 5 (outstanding).

The ratings for each carrier appearing in this report were calculated by multiplying the number of votes by their point value. Total points were then divided by the number of shippers evaluating the carrier to find the average. For example, the rating for XYZ Company's service would be calculated as follows:

Range	*Respondents*	*Value*
0	*100*	*0*
1	*30*	*30*
2	*90*	*180*
3	*20*	*60*
4	*230*	*920*
5	*110*	*550*
Total	*580*	*1740*

Average: 3.000

Category averages are the sum of all carrier averages received (not just those reported) divided by the number of carriers in that section. This report includes ratings for only those carriers that received enough responses to allow statistically measurable results.

Independent researchers (Temple University's Dr. Richard Lancioni and his assistant, Lauren Harris) tabulated all questionnaires and generated the scores in this special report.

The Quality Carriers

DISTRIBUTION has designated a number of transportation companies as "Quality Carriers" (page 32). Each of these carriers received ratings in all performance categories higher than the averages for their group. No company with a rating lower than 3.00 (just acceptable performance) in any category qualified as a "Quality Carrier."

No effort has been made to rank the carriers. Before any shipper can calculate which carrier has the "performance profile" it is looking for, it must establish a weighting for each category.

The simplest way to do this is to assign weighted point values to the four performance categories. For instance, take a total of 10 points and assign the appropriate weighting to service, convenience, price and sales effectiveness, based on the importance of each performance category to you.

After determining the weightings, multiply them times the reported scores for the various carriers. The carrier with the highest total of points after four categories have been extended is your best carrier.

Here's an example. Suppose your weighted scale of carrier performance characteristics is four points for service, three for price, two for convenience and one for sales effectiveness. The extended scores and total points for the XYZ Company would be:

Performance Category	*Reported Score*	*Weight Factor*	*Total Score*
Service	*3.000*	*4*	*12.000*
Price	*3.100*	*3*	*9.300*
Conv	*2.800*	*2*	*5.600*
Sales	*2.500*	*1*	*2.500*
Total			*29.400*

A Caveat To Readers

In the past, certain carriers have attempted to use the ratings in our *Quest For Quality* survey as a competitive ranking system. We caution readers not to pay any attention to such manipulations of numbers and improper use of our survey. Such use is statistically meaningless. It also corrupts the intent of the *Quest For Quality* survey.

DISTRIBUTION's *Quest For Quality* survey, and the medallion associated with it, are protected by federal copyright and trademark laws. To ensure that the *Quest For Quality* program is not used improperly, DISTRIBUTION prohibits any reproduction or use of this article without the express written permission of the publisher. ■

For information on quantity reprints, contact Laura Doughty at (215) 964-4391.

HAVE THE GOOD TIMES ROLLED?

The motor carrier industry rode an expanding economy to new heights in 1988, but a slumping economy and upward cost pressures may put LTL and TL profits for 1989 in low gear.

By Thomas A. Foster, Editorial Director

For the entire trucking industry, 1988 was a year that unfolded like the great American dream. The first quarter started very humbly with the slow growth and financial ills it had inherited from years past. In the second quarter, the industry faced great adversity including a new, expensive labor agreement and shipper complaints over two rate increases. By the third quarter most truckers, from small TL carriers to the giant LTL companies, turned this adversity into very respectable profits, and by the end of the year the industry rode an expanding economy to heights of success it has not enjoyed in many years.

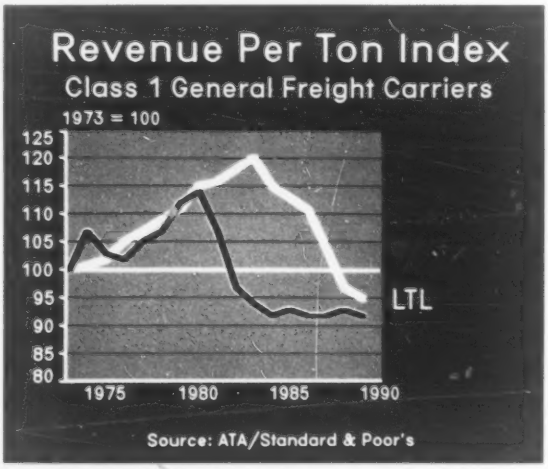
The earnings of the 100 largest common carrier trucking companies reporting to the Interstate Commerce Commission enjoyed a 1988 revenue increase of 8.9 percent, a tonnage increase of 8.2 percent, a net income increase of 57.6 percent and a whopping return on equity increase of 54.1 percent.

But 1989 may not have as happy an ending for the motor carrier industry.

"If 1988 was a success story built on expansion, 1989 is going to be a margin-squeeze story," says George Robertson, a leading trucking industry analyst with Alex. Brown & Sons in Baltimore. "We see flat earnings in 1989 compared to 1988."

The factors Robertson sees causing a margin squeeze for LTL motor carriers this year are as follows:

- Pricing has become more intense as competition within and between modes has increased.
- Capacity is growing faster than freight volume.
- Fuel prices are still higher than 1988 levels.



Rate discounting abated slightly in 1988, but revenues per ton continue to fall for all carriers.

The biggest concern, however, is a weakening economy, which Robertson says has been getting softer and softer since February.

"The large LTL carriers usually focus all their effort on long-haul traffic," says Robertson. "Since the first quarter, we have seen them looking for regional business, so they can maintain their volumes."

This market pressure is causing noticeable LTL price and earnings erosion. "First quarter margins were disappointing considering the rate increases taken in late February," says Robertson. "Higher fuel prices could account for some of the margin shortfall, but the other reason probably has been higher discounting in the seasonally weak winter months."

After nearly a whole year of firming rates, Robertson sees increasing volatility. "About three-quarters of LTL revenues are subject to rates negotiated between shippers and carriers," says Robertson. "During most of 1988, rates were up more than costs because the leading carriers have been walking away from marginally profitable business.

"I would like to think the big carriers will not eat away at their own margins by lowering rates and going after low-profit business," says Robertson. "They have taken marginal traffic away from the regionals, and needless to say, some of the regionals are being hurt by this increased competition from the big carriers."

In spite of the sluggish economy and signs of rate volatility, Robertson views the business strategies of the LTL carriers today as

continued

very unlike those of just a couple years ago when the carriers were frantically fighting for market share. Carriers were giving big discounts to get more business with the hope that the other guy will go under.

"The forces of consolidation were driving this market. Now trucking has gone back to a business that is more closely in tune with general business cycles," says Robertson. "Today, there is no ongoing attempt to use heavily discounted pricing to get business. Discounts are still used to protect business they have. But more often than not, the carrier today will walk away from business that is priced too low."

Helping carriers determine the good traffic from the marginal freight is an increasingly sophisticated costing technique. "A growing number of LTL carriers know how profitable every bit of freight they generate will be," says Robertson. "These carriers are no longer just costing out lanes. Rational pricing is the trend for the future. Carriers that know their costs will not take freight just because it is there."

If the economy really has a hard landing, however, few analysts believe that carriers will walk away from any business in a weak economy. "It really depends on the economy," says Robertson.

Robertson points out that the operating margins are thinner today than they have been at the same stage of the business cycle, making earnings more volatile. Further, carriers have already tightened their belts just to survive the rate wars of the mid-1980s. "Any significant pressure on rates will be reflected in margins immediately," says Robertson. "There is no fat to cut."

There is some sign that pressure will be on rates very soon. In 1988 the two rate increases stuck with little shipper resistance. This year there was one increase in February, and the LTL carriers are already backing off on rates. "If the slowdown continues well into the third quarter, the carriers will be giving back about a 3 percent rate increase," says Robertson.

Adding to the rate and revenue problems caused by a slumping economy are a variety of strategies shippers are using to find low-cost alternatives to LTL distribution.

"The smart shippers are looking at alternatives such as

REVENUES OVER $500 MILLION

Carrier	$ Million
1. U.P.S. (Ohio)	6,608.0
2. U.P.S. (N.Y.)	2,526.7
3. Yellow Freight	1,991.6
4. Consolidated Freightways	1,749.2
5. Roadway Express	1,693.6
6. North American Van Lines	817.9
7. Overnite Transportation	638.5
8. ABF Freight System	616.8
9. Carolina Freight	531.6

The top revenue producing truckers include a parcel carrier, big LTL carriers and a TL/HHG carrier.

MAJOR MOTOR CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
AAA Cooper Transportation	1988	116.47	14.09	12.39	0.90	87.9	45.94
	1987	92.11	8.85	7.37	0.75	90.4	32.79
ABF Freight System	1988	616.77	26.02	8.91	2.70	95.8	33.93
	1987	526.29	10.44	0.42	2.40	98.0	1.56
ANR Freight System	1988	468.01	(7.10)	(6.28)	3.19	101.5	-0-
	1987	405.92	(12.64)	(8.19)	2.89	103.1	-0-
A.P.A. Transport Corp.	1988	129.16	8.60	6.48	0.72	93.3	19.06
	1987	118.93	8.46	5.90	0.67	92.9	22.51
Advance Transportation	1988	94.77	2.49	0.51	0.83	97.4	9.14
	1987	72.19	3.08	2.36	0.63	95.7	52.66
Allied Systems Ltd.*	1988	200.81	6.13	5.89	7.28	96.9	33.13
	1987	193.33	(1.54)	(3.00)	5.99	100.8	-0-
Allied Van Lines	1988	383.63	6.48	2.91	0.61	98.3	6.99
	1987	382.74	3.56	5.36	0.62	99.1	14.75
Arkerman Transport	1988	54.51	0.16	(0.75)	0.42	99.7	-0-
	1987	53.95	1.51	0.62	0.46	97.2	3.84
Atruk Freight Systems Inc.	1988	56.76	(1.64)	(2.80)	0.97	102.9	-0-
	1987	62.56	(2.06)	(3.75)	0.91	103.3	-0-
Anchor Motor	1988	272.21	6.84	(0.67)	3.29	96.9	*
	1987	266.12	10.78	(0.79)	3.70	96.2	*
Anderson Trucking Svc	1988	83.82	4.85	2.68	0.90	94.2	16.48
	1987	74.72	2.48	1.14	0.88	96.7	7.50
Arkansas Freightways	1988	73.06	6.39	2.98	0.59	91.3	*
	1987	*	*	*	*	*	*
Atlas Van Lines	1988	201.01	12.01	0.03	0.31	94.0	-0-
	1987	184.75	10.62	0.56	0.29	94.1	-0-
Averitt Express Inc.	1988	87.23	7.62	3.48	1.07	91.30	48.10
	1987	63.65	5.60	2.22	0.86	91.2	46.39
Bekins Van Lines	1988	214.37	2.77	2.01	0.39	98.7	6.54
	1987	216.72	0.51	0.61	0.42	99.8	1.99
Builders Transport	1988	203.86	8.08	(0.49)	5.97	96.0	*
	1987	185.26	13.58	6.42	5.50	92.7	*
Burnham Service Co.	1988	96.14	8.62	5.29	0.19	91.0	26.10
	1987	93.88	10.76	5.32	0.18	88.5	36.71
Carolina Freight	1988	531.56	25.59	12.95	2.53	95.2	12.67
	1987	472.63	24.08	12.47	2.35	94.9	13.90
Carretta Trucking	1988	65.66	1.77	0.19	2.28	97.3	1.55
	1987	57.28	3.75	1.75	1.91	93.5	15.87
Cassens Transport	1988	81.13	3.46	2.09	1.06	95.7	46.22
	1987	67.22	0.10	(0.18)	1.09	99.8	-0-
Central Freight	1988	211.42	19.14	11.02	2.42	90.9	11.11
	1987	196.17	14.31	10.94	2.32	92.7	12.69
Central Transport (Mich.)	1988	309.64	10.32	9.90	5.34	96.7	13.18
	1987	275.99	10.85	9.61	4.67	96.1	14.01
Central Transport (N.C.)	1988	52.40	3.70	3.80	1.22	92.9	15.63
	1987	51.96	2.32	2.39	1.28	95.5	9.50
Chemical Leaman	1988	214.42	6.14	(2.22)	6.41	97.1	*
	1987	202.36	5.76	0.73	6.37	97.2	*
Churchill Truck Lines	1988	139.55	5.26	3.81	0.82	95.5	19.89
	1987	108.86	2.58	1.32	0.66	97.6	7.24
Commercial Carriers Inc. (Mich.)	1988	198.04	14.32	11.59	3.44	92.8	33.39
	1987	189.54	14.83	8.80	3.21	92.2	24.86

continued

the old concept of assembly distribution, where they use a TL carrier for a long haul and a regional carrier to break the shipment and do local distribution," says Robertson.

"Shippers also have an even wider choice of transportation alternatives because their type of shipment has changed in recent years," says Robertson. "There are fewer thousand-pound shipments in one large crate. What you see are more thousand-pound pallets made up of 50 smaller shipments. If the shipper wanted to, he could ship them UPS, RPS or some other way.

"This is not a major diversion yet, but the carriers are well aware that shippers are looking for alternatives. They know that if they try to push up prices, shippers will simply try a different way of shipping.

"Small LTL carriers are benefiting from this experimentation trend among shippers," says Robertson. In fact, he says one of the most profitable sectors of the whole trucking industry is the small carrier with annual revenues between $10 and $50 million.

"Trucking is not a business that has many economies of scale," says Robertson. "There is absolutely no correlation between size and profitability. Modest-size carriers that have a big part of a small market or a small part of many large markets can often maneuver better than larger carriers during hard times.

"The fear that a few LTL carriers would take over the trucking business and be able to control pricing just hasn't happened – and probably never will.

"The entire motor freight sector is a buyers' market," says Robertson. He believes it is up to the individual carriers to position themselves strategically to avoid extreme rate pressures from shippers.

"A carrier that is perceived to be exactly the same as five or 10 other competitors has a vulnerable market position," says Robertson. "The pricing for these carriers

OPERATING RATIOS UNDER 90

Carrier	Operating Ratio
1. Estes Express	80.2
2. Koch Service	80.6
3. New Penn Motor Express	81.6
4. M.S. Carriers	84.4
5. J.B. Hunt Transport	84.8
6. Werner Enterprises	85.3
7. Contract Freighters	85.5
8. Con-Way Western Express	86.9
9. Overnite Transportation	87.1
10. Saia Motor Freight	87.2
11. AAA Cooper Transportation	87.9
12. Roberts Express	89.1
13. Commercial Carriers Inc. (Fla.)	89.2
14. TNT Holland Motor Express	89.6
15. New Prime Inc.	89.7
16. Jack Gray Transport Inc.	89.8

The list of most efficient operators includes mainly medium-size LTL carriers and large TL companies.

MOTOR CARRIERS *continued*

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Commercial Carriers Inc. (Fla.)	1988	48.23	*	*	*	89.2	*
	1987	46.03	*	*	*	94.1	*
Complete Auto	1988	247.18	15.12	14.46	2.70	93.9	*
	1987	234.48	16.34	10.33	*	93.0	*
Consolidated Freightways	1988	1,749.18	105.88	74.98	6.52	93.9	17.81
	1987	1,555.22	76.72	46.26	6.18	95.1	10.81
Contract Freighters	1988	99.21	14.38	11.71	1.35	85.5	114.33
	1987	82.04	9.54	6.82	1.21	88.4	102.05
Convoy Company	1988	68.64	0.46	0.38	0.81	99.3	*
	1987	62.64	0.18	(0.12)	0.68	99.7	*
Con-Way Eastern Express	1988	51.79	(5.39)	(3.69)	0.34	110.4	-0-
	1987	42.65	(6.72)	(4.83)	0.30	115.8	-0-
Con-Way Western Express	1988	88.80	11.66	7.00	0.55	86.9	*
	1987	65.99	8.01	4.34	0.42	87.9	*
Jack Cooper Transport	1988	90.79	2.23	0.05	1.37	97.5	* 0.08
	1987	79.83	0.84	(0.70)	1.30	98.9	-0-
Country Wide Truck Serv	1988	87.83	0.41	(1.52)	*	99.5	*
	1987	72.66	5.07	1.90	*	93.0	*
Crete Carrier Corp	1988	96.94	4.70	4.49	1.83	95.1	20.53
	1987	89.01	5.07	3.28	1.61	94.3	16.66
Crouse Cartage Co	1988	48.97	1.75	1.25	0.66	96.4	40.30
	1987	44.50	(0.22)	0.04	0.68	100.5	1.18
DSI Transports	1988	65.58	5.42	2.38	3.27	91.7	30.90
	1987	55.24	4.84	1.72	2.76	91.2	24.27
Daily Express	1988	48.12	3.24	3.63	0.75	93.3	22.90
	1987	49.73	2.25	2.39	1.03	95.5	15.43
Dallas & Mavis	1988	85.35	5.63	3.48	1.20	93.4	25.79
	1987	65.02	3.80	2.09	0.92	94.2	1.84
Dart Transit	1988	85.14	5.53	5.05	1.43	93.5	*
	1987	73.67	5.99	3.96	1.08	91.9	*
Dayton	1988	57.37	2.12	1.70	1.64	96.3	7.04
	1987	55.69	3.69	3.23	1.63	93.4	15.40
Donco Carriers Inc.	1988	60.45	2.31	1.73	1.09	96.2	30.03
	1987	55.28	3.73	2.87	0.76	94.3	87.21
E & L Transport	1988	104.76	*	*	*	96.9	*
	1987	97.37	*	*	*	99.7	*
Estes Express	1988	88.52	17.50	11.32	0.91	80.2	34.68
	1987	79.58	13.89	8.10	0.86	82.5	29.82
FFE Transportation	1988	88.70	4.41	2.88	0.97	95.0	*
	1987	83.26	3.01	2.13	0.87	96.4	*
Fleet Transport	1988	72.68	(1.08)	(2.72)	7.51	101.5	-0-
	1987	61.89	(0.99)	(1.96)	5.44	101.6	-0-
Freeway Express Inc.	1988	55.74	0.97	0.59	0.53	98.3	24.03
	1987	44.10	1.42	0.71	0.47	96.8	30.56
Freymiller Trucking Inc.	1988	58.74	3.74	0.76	0.60	93.6	5.72
	1987	42.10	4.12	2.00	0.42	90.2	78.46
G. I. Trucking	1988	75.00	(2.60)	(2.97)	0.41	103.5	-0-
	1987	61.96	0.81	(0.17)	0.34	98.7	-0-
Gemini Trucking	1988	89.04	2.43	0.39	*	97.3	*
	1987	*	*	*	*	*	*
Global Van Lines	1988	58.61	0.94	0.75	0.09	98.4	10.51
	1987	54.03	0.60	0.44	0.08	98.9	6.90
Graebel Van Lines	1988	66.87	0.34	0.08	0.08	99.5	1.61
	1987	62.12	1.12	0.48	0.07	98.2	9.85

continued

will be controlled by the shipper. But carriers that can adapt to shipper's needs and provide a service edge are in a position to negotiate on price and probably get a premium of at least five percent. These carriers have no higher costs than their competitors, so the extra revenue goes right to the bottom line. The small and medium LTL and TL carriers should be doing everything they can to join the ranks of these highly differentiated carriers. Otherwise, they are going to have real problems with their revenues and earnings in the near future."

The TL carriers will have even a tougher time than the LTL carriers in 1989, according to John Larkin, Alex. Brown's analyst who follows the truckload sector.

"Not only do they have a slumping economy to contend with, but TL carriers have more competitors and face more severe cost pressures," says Larkin.

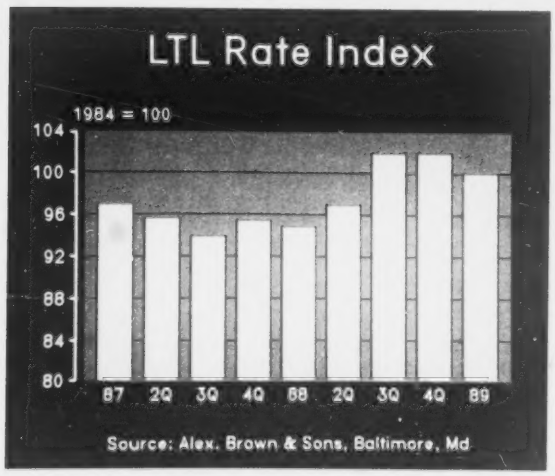
"Even though the economy is slumping, we've seen the addition of significant capacity in the truckload and rail intermodal industries, creating a supply-demand imbalance that favors shippers, not carriers," says Larkin.

TL traffic is still seeing growth resulting from private fleets being whittled down, but Larkin says many TL carriers mistake these minor increases for real growth in new TL traffic.

"These TL carriers are not cutting costs to maintain their profit margins in a slow market," says Larkin. "They continue to add capacity just when they should be tightening their belts. The whole industry has to wait for demand to catch up with supply to the point where rates can be raised, utilization strengthened and empty mile ratios returned to 1988 levels," says Larkin.

Larkin believes only the most profitable TL carriers, those with operating ratios under 92, can justify the purchase of new equipment at this time.

While new TL capacity is creating problems for the in-



LTL rates are down slightly in 1989 despite the February rate increases. Discounting is the culprit.

MOTOR CARRIERS *continued*

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Greenstye Transportation	1988	75.93	5.46	4.44	4.33	92.8	176.45
	1987	66.98	1.29	0.46	4.52	98.1	9,240.00
J. B. Hunt Transport	1988	392.55	59.74	3.30	*	84.8	*
	1987	286.42	42.96	25.97	3.48	85.0	*
Hyman Freightways	1988	84.86	0.50	0.44	0.60	99.4	9.50
	1987	73.53	0.92	0.46	0.56	98.7	11.83
Independent Freightways	1988	130.80	1.66	0.60	*	98.7	*
	1987	*	*	*	*	*	*
Jack Gray Transport Inc.	1988	76.45	7.76	4.91	4.55	89.8	106.00
	1987	52.25	2.67	1.20	4.14	94.9	35.32
Jones Motor Co.	1988	68.55	1.09	1.66	1.26	98.4	21.23
	1987	74.60	0.83	1.24	1.48	98.9	19.06
Jones Transfer	1988	70.95	1.92	(4.93)	1.33	102.7	-0-
	1987	71.37	(1.04)	(2.95)	1.38	101.5	-0-
Jones Truck Lines	1988	133.01	4.77	(4.01)	1.26	97.5	-0-
	1987	172.53	9.83	(2.08)	1.19	94.3	-0-
KLLM	1988	97.41	8.39	2.94	1.46	91.4	*
	1987	75.23	7.20	3.01	0.95	90.4	*
Koch Service	1988	91.96	17.82	11.10	*	80.6	*
	1987	88.06	*	*	*	84.2	*
Lyons Transportation	1988	72.54	(0.59)	(0.51)	0.51	100.8	-0-
	1987	63.73	(1.76)	(1.64)	0.48	102.8	-0-
M&G Convoy	1988	107.46	1.85	2.04	1.34	98.3	12.92
	1987	117.97	7.52	4.67	1.43	93.6	28.67
M.S. Carriers	1988	68.48	10.66	6.44	*	84.4	*
	1987	*	*	*	*	*	*
McGil Specialized Carriers	1988	58.02	1.25	0.39	0.54	97.9	7.77
	1987	51.29	1.33	0.52	0.65	97.4	11.06
Marten Transport	1988	67.17	3.87	1.61	0.94	94.2	15.97
	1987	57.56	5.62	2.44	0.76	90.2	31.84
Matlack	1988	227.70	6.85	0.85	8.76	97.0	*
	1987	204.30	2.85	(0.76)	8.10	98.6	*
Mayflower Transit	1988	314.23	8.88	6.39	0.60	97.2	9.47
	1987	312.07	13.99	12.32	0.67	95.5	23.71
Melton Truck Lines	1988	45.18	*	*	*	99.3	*
	1987	47.94	*	*	*	99.6	*
Mercer Transportation	1988	73.39	4.47	4.41	1.24	93.9	*
	1987	60.26	*	*	*	95.4	*
Merchants Fast Motor	1988	88.59	0.54	0.35	0.96	99.4	4.29
	1987	76.39	(1.83)	(1.10)	0.91	102.4	-0-
Merchants Home Delivery	1988	78.14	6.33	3.27	*	91.9	*
	1987	62.43	5.78	2.69	*	90.7	*
Middlewest Freightways Inc.	1988	41.60	0.93	0.37	0.33	97.8	4.92
	1987	36.89	0.31	(0.14)	0.30	99.9	-0-
Mid West Coast Transport	1988	69.17	1.70	1.11	0.81	97.5	10.70
	1987	70.75	2.67	1.61	0.80	96.2	18.30
Midwestern Distribution	1988	56.31	(3.59)	(3.51)	0.79	106.4	-0-
	1987	68.47	(2.37)	(2.53)	0.95	103.5	-0-
Miller Transporters	1988	74.05	2.63	0.83	3.25	96.4	8.87
	1987	66.94	3.20	1.34	3.42	95.2	15.98
Missouri Nebraska Express	1988	85.23	3.95	1.47	0.84	95.4	4.40
	1987	70.19	6.50	3.88	0.72	90.7	27.25
Morgan Drive Away Inc.	1988	59.78	1.96	1.27	0.72	96.7	17.01
	1987	49.59	1.48	1.11	0.67	97.0	16.05

continued

dustry, so is competition from intermodal operators, especially the double-stack services, according to Larkin.

Double-stack rail operations still are limited to a relatively few high-volume corridors, but he says they are having an impact on the whole surface transportation system by flushing truckload capacity out of long-haul, high-density lanes mostly in the West, into shorter-haul, lighter-density lanes mostly in the East.

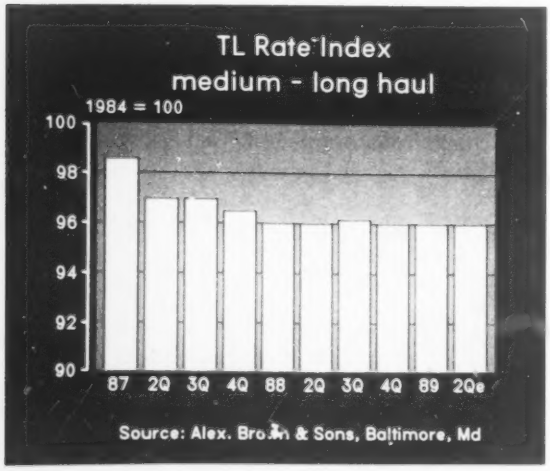
This cascading effect has increased the level of competition among Eastern-oriented rail intermodal operations and trucking companies. Larkin thinks this trend will intensify, especially if fuel prices increase and the driver shortage becomes more severe.

"Intermodal operators have boosted service levels by taking control of the door-to-door movement to the point that intermodal is quite acceptable to many shippers," says Larkin.

While it is hard to estimate the inroads of intermodal on the TL market, Larkin thinks it could soon reach 10 to 15 percent of truckload traffic. "In many areas that percent is equal to total tonnage growth, so if that happens, market growth for TL carriers will be zero," says Larkin.

Shippers are not helping the situation for TL carriers, according to Larkin. Many shippers have adopted the core-carrier concept to improve the quality of their overall service while simultaneously reducing the number of carriers with which they are doing business. But according to Larkin, only about 30 to 50 percent of these shippers are genuinely interested in developing long-term partnerships with carriers. The other 50 to 70 percent are setting up intense competition between the largest, strongest and most efficient of the TL carriers.

"As carriers try to get their cost-pushed rate increases through, they are finding that the so-called partnership is really a one-way street," says Larkin. "This is the dark



Stiffening competition from intermodal operators is putting downward pressure on long-haul TL rates.

MOTOR CARRIERS *continued*

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Munson Transportation	1988	82.93	7.37	3.36	1.99	91.1	42.19
	1987	66.09	6.09	2.90	1.05	90.8	57.76
National Carriers	1988	68.12	2.11	0.33	*	96.9	*
	1987	67.33	*	*	*	96.8	*
New Penn Motor Express	1988	100.55	20.12	16.09	0.72	81.6	34.79
	1987	95.46	17.17	9.71	0.70	82.0	25.73
New Prime Inc	1988	61.19	6.31	4.27	1.04	89.7	85.34
	1987	45.02	4.66	2.68	0.68	89.2	280.78
North American Van Lines	1988	817.89	22.26	6.37	4.06	97.3	3.33
	1987	790.52	27.00	20.24	3.92	96.6	11.87
North Penn Transfer	1988	39.75	0.42	1.66	0.33	98.9	32.22
	1987	43.74	3.94	3.99	0.36	109.0	0
Northwest Transport	1988	172.33	13.92	9.06	0.82	91.9	19.00
	1987	131.93	11.08	6.88	0.67	91.6	16.82
NuCar Carriers	1988	*	*	*	*	*	*
	1987	142.92	8.31	2.93	2.85	94.2	*
The O.K. Trucking Co	1988	47.08	1.11	0.06	0.50	97.6	-0-
	1987	47.41	(3.78)	(3.88)	0.49	108.0	-0-
Old Dominion Freight Lines	1988	114.79	5.48	1.23	0.99	95.2	25.16
	1987	106.32	0.11	(4.13)	1.01	99.9	-0-
Overnite Transportation	1988	638.49	82.61	37.39	4.42	87.1	10.74
	1987	543.13	71.05	23.52	3.95	86.9	9.30
P.A.M.	1988	78.78	2.05	(1.31)	*	97.3	*
	1987	*	*	*	*	*	*
Pacific Motor Trucking	1988	38.81	*	*	*	94.1	*
	1987	70.75	(1.79)	(1.11)	1.04	102.5	*
Pennsylvania Truck Lines	1988	88.92	2.03	0.91	*	97.7	*
	1987	93.08	0.11	(1.68)	*	99.9	*
P.I.E. Nationwide Inc[6]	1988	498.80	(5.82)	(20.59)	1.87	101.2	-0-
	1987	589.84	(28.84)	(53.84)	2.34	104.8	-0-
Pre-Fab Transit	1988	72.03	2.34	1.35	1.36	96.8	19.63
	1987	58.68	0.44	0.79	1.23	99.3	11.17
Preston Trucking	1988	368.04	10.64	4.24	2.50	97.1	4.35
	1987	318.85	(0.34)	3.17	2.31	100.1	3.23
Ranger	1988	209.93	2.85	1.43	*	98.6	*
	1987	*	*	*	*	*	*
Refiners Transport	1988	69.04	(2.33)	(3.99)	9.01	103.4	-0-
	1987	65.69	(1.98)	(3.49)	8.43	103.0	-0-
Roadrunner	1988	74.27	6.65	2.92	*	91.0	*
	1987	*	*	*	*	*	*
Roadway Express	1988	1,693.60	100.56	74.72	6.46	94.1	10.13
	1987	1,596.30	86.53	63.79	6.47	94.6	8.96
Roberts Express	1988	76.58	8.38	5.57	0.17	89.1	*
	1987	*	*	*	*	*	*
Ryder Distribution	1988	251.75	5.05	(0.96)	2.50	98.0	*
	1987	*	*	*	*	*	*
Ryder Freight System	1988	84.89	(6.51)	3.41	1.07	107.7	62.57
	1987	133.98	(8.26)	(6.21)	1.52	106.2	-0-
Ryder Temp Controlled Carriage	1988	57.18	(4.56)	(2.12)	0.30	108.0	-0-
	1987	53.72	(0.24)	(0.43)	0.37	100.4	-0-
Saia Motor Freight	1988	73.44	9.37	1.96	0.76	87.2	4.65
	1987	62.59	8.22	1.31	0.73	86.9	2.99
St. Johnsbury Trucking	1988	296.90	28.25	5.27	1.89	90.5	10.12
	1987	284.20	30.31	7.94	1.84	89.3	14.99

continued

side of the core carrier concept. The shipper tells the carrier that if it wants to keep the business, it won't pass the rate increases on."

As a result of these competitive pressures, many TL carriers report that pricing will remain roughly flat during 1989, according to Larkin.

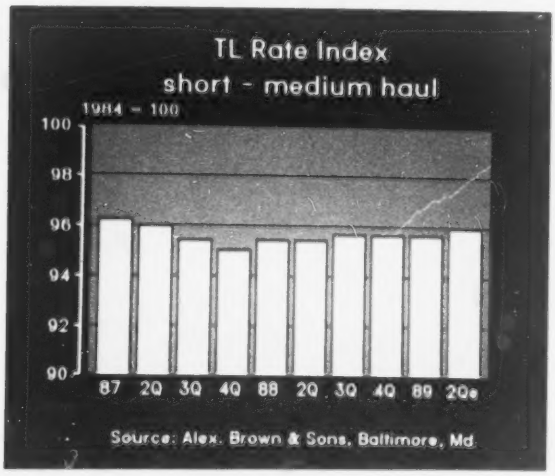
"Those carriers with a significant piece of a customer's business, or those carriers offering a truly differentiated service over another may be able to boost their prices 1 to 4 percent during 1989," says Larkin, "but our estimate is that a maximum average increase of 2 to 3 percent is all that can be expected for even the most well-positioned carriers."

Cost pressures will probably also be more intense in the TL sector than in the LTL sector. Fuel is 15 to 17 percent of the total cost for TL carriers, while it is only about 5 percent for LTL carriers. Thus the current price increase for fuel, including taxes, of 6 to 8 cents per gallon above 1988 year-end levels will affect the TL carriers more severely.

The other major fuel cost concern is state and federal taxes, which are being pushed as ways to help reduce the budget deficit, as well as to improve the crumbling infrastructure. Substantial tax increases are possible in 1989 or 1990. Estimates of such an increase range from about 9 cents to 30 cents.

"The carriers with the widest operating margins and the most fuel-efficient fleets might even benefit from a small fuel tax increase because of the margin pressure brought to bear on the low margin, inefficient TL carriers," says Larkin, "but no one wants to see a big tax."

Equipment costs are going up for TL carriers faster than they are for the LTL carriers, which generally have more buying clout. Small carriers are seeing price increases for both tractors and trailers.



Short-haul TL rates have been firm, but shippers are resisting higher rates to cover higher carrier costs.

MOTOR CARRIERS *continued*

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME ($ millions)	NET INCOME[1] ($ millions)	REVENUE TONS HAULED[1] (millions)	OPERATING RATIO[1] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[1]
Schneider National	1988	332.92	7.07	5.01	*	97.7	*
	1987	239.46	(4.42)	5.10	*	101.9	*
Shaffer Trucking Inc	1988	46.76	2.41	2.60	0.65	94.9	11.45
	1987	47.38	2.56	2.83	0.67	94.6	19.49
Wm. B. Shaw Frozen Express	1988	51.98	5.13	4.58	0.59	90.1	37.16
	1987	46.92	3.59	1.80	0.53	92.3	17.16
Signal Delivery	1988	248.72	10.56	1.24	*	95.8	*
	1987	232.78	5.27	(1.68)	*	97.5	*
Smalley Transportation	1988	45.04	1.40	0.74	0.67	96.9	8.90
	1987	36.65	1.19	0.33	0.45	96.8	3.96
Southeastern Freight	1988	119.98	9.26	8.80	1.17	92.3	35.82
	1987	104.08	5.94	5.85	1.06	94.3	28.55
Southwestern Motor Transport	1988	54.72	2.66	1.95	0.54	95.1	11.87
	1987	47.81	1.13	0.78	0.50	97.6	4.92
Spartan Express	1988	68.76	(6.02)	(5.33)	0.67	108.8	*
	1987	62.47	(6.63)	(4.47)	0.65	110.6	*
Stiles	1988	104.53	1.54	0.68	*	98.5	*
	1987	*	*	*	*	*	*
TNT Bestway Transportation Inc.	1988	48.51	3.42	1.48	0.31	92.9	18.54
	1987	41.26	1.57	0.51	0.28	96.2	6.81
TNT Holland Motor Express	1988	181.95	19.97	11.69	1.59	89.6	37.11
	1987	144.01	17.16	8.17	1.25	88.1	26.55
TNT Red Star Express	1988	127.42	4.94	2.89	0.67	96.1	7.44
	1987	114.44	7.27	5.71	0.63	93.6	14.92
Transcon Lines	1988	266.06	(20.05)	(27.18)	1.10	107.5	-0-
	1987	333.76	(11.04)	(19.63)	1.85	103.3	-0-
Transus	1988	68.79	0.60	(0.38)	0.80	99.1	-0-
	1987	75.73	(5.98)	(0.30)	0.79	107.9	-0-
Tri-State Motor Transit	1988	93.72	(0.46)	0.34	0.80	100.5	1.65
	1987	103.19	(2.04)	(2.63)	0.84	102.0	-0-
U.P.S. (Ohio)	1988	6,608.04	373.58	424.99	*	93.6	*
	1987	5,828.29	330.10	206.28	*	94.3	*
U.P.S. (N.Y.)	1988	2,526.71	3.68	22.72	*	99.1	*
	1987	2,227.41	(0.68)	15.34	*	100.0	*
United Van Lines	1988	440.28	0.09	0.16	0.78	100.0	0.47
	1987	414.46	(3.57)	(0.79)	0.80	100.9	-0-
Universal Am-Can	1988	78.61	5.31	4.18	1.68	93.2	*
	1987	65.51	3.77	3.53	1.44	94.2	*
Viking Freight	1988	205.15	14.69	7.23	1.29	92.8	14.57
	1987	165.95	7.94	4.38	1.30	95.7	9.71
Watkins Motor Lines	1988	172.76	7.46	2.61	0.65	95.7	13.70
	1987	146.70	6.31	1.42	0.56	95.7	8.10
Werner Enterprisers	1988	191.44	28.21	16.07	1.68	85.3	*
	1987	139.09	21.39	12.07	2.61	84.6	*
Wheaton Van Lines Inc	1988	48.49	2.65	1.78	0.07	94.5	10.01
	1987	44.61	2.51	1.62	0.076	94.4	9.60
Willig Freight	1988	75.57	5.35	1.94	0.56	92.9	78.40
	1987	66.63	4.64	2.19	0.54	93.2	17.60
Wilson Trucking	1988	58.51	5.91	3.67	0.52	90.0	15.63
	1987	55.46	6.64	4.16	0.48	88.0	19.40
Yellow Freight	1988	1,991.60	110.15	66.42	7.77	94.5	17.51
	1987	1,740.70	73.24	40.20	6.86	95.8	10.72

*Indicates data not available

Source: Interstate Commerce Commission, CCJ, Alex. Brown & Sons

continued

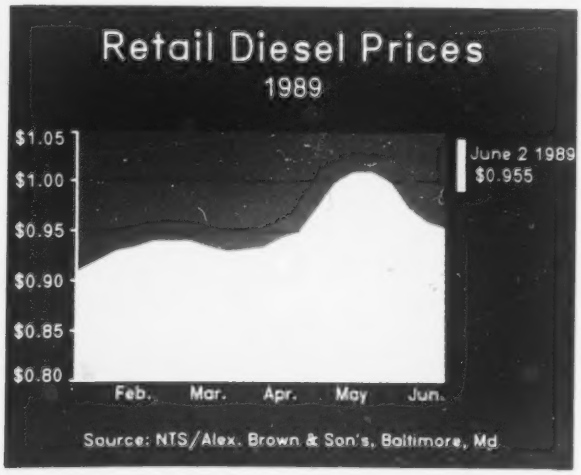
Trailers that were $15,000 a few years ago are now $16,000, according to Larkin. Tractors that were $50,000 to $55,000 are now at least $60,000. "Some of this is just price increases," says Larkin. "Some of it is also more elaborate specifications. To attract drivers, more comforts are needed in the cabs. Carriers are looking at more high-tech items like on-board computers and satellite tracking devices."

Larkin says TL carriers will have to be careful about all equipment investments. "The challenge is not necessarily to avoid adding fixed investment but rather to add those highly productive items that are clearly justified on an economic basis. In a business that often looks like a commodity business, cost control is key. Margins are simply not sufficient to support excess fixed plant or technological experimentation, especially during tough times."

In both the LTL and TL sectors, debt is increasing, says Robertson. "Trucking is getting on the leverage bandwagon just like other businesses," he says. "The days of debt-free carriers are rapidly disappearing. Having debt as 30 percent of capital was once considered high, now it is not. The time has come when a good, average carrier will have to be satisfied with operating ratios of around 93 or 94 percent. To leverage these operating ratios to 15 percent return on equity, which other businesses are used to, truckers must include much more depth in their capital structure.

"Trucking is a natural for leverage," says Robertson. "It has the three Rs: receivables, real estate and rolling stock, all of which can be leveraged for great amounts of debt capital."

As debt increases, so will leveraged buyouts (LBOs), according to Robertson. "We've seen a couple already, and there will be others. Stock prices are now too high compared to underlying value. Stocks are selling at 1½ to



Fuel prices peaked in May, but will still be six to eight cents per gallon over 1988 year-end levels.

HOUSEHOLD GOODS CARRIERS SELECTED EARNINGS DATA

CARRIER & YEAR		OPERATING REVENUES ($ millions)	NET CARRIER OPERATING INCOME[1] ($ millions)	NET INCOME[2] ($ millions)	REVENUE TONS HAULED[3] (millions)	OPERATING RATIO[4] (percent)	RETURN ON EQUITY LESS INTANGIBLE PROPERTY (%)[5]
Allied	1988	383.63	6.48	2.91	0.61	98.3	6.99
Van Lines	1987	382.74	3.56	5.36	0.62	99.1	14.75
American	1988	27.21	0.26	0.22	0.05	99.0	18.17
Red Ball[6]	1987	27.64	0.41	0.41	0.05	98.5	43.45
Paul Arpin	1988	34.25	1.16	1.06	0.06	96.6	32.72
Van Lines	1987	31.32	1.38	1.24	0.05	95.6	41.87
Atlas Van	1988	195.91	11.40	0.03	0.31	94.2	-0-
Lines[7]	1987	182.59	10.58	0.56	0.29	94.2	0-
Bekins	1988	203.82	2.26	2.01	0.35	98.9	6.54
Van Lines[7]	1987	207.06	0.16	0.61	0.37	99.9	1.99
Burnham	1988	96.14	8.62	5.29	0.19	91.0	26.10
Service Co	1987	93.88	10.76	5.32	0.18	88.5	36.71
Global	1988	58.61	0.94	0.75	0.09	98.4	10.51
Van Lines[7]	1987	54.03	0.60	0.45	0.08	98.9	6.90
Graebel	1988	66.87	0.34	0.08	0.08	99.5	1.61
Van Lines	1987	62.12	1.12	0.48	0.07	98.2	9.85
Interstate	1988	14.24	0.97	1.15	0.02	93.2	26.98
Van Lines	1987	13.21	0.87	0.90	0.02	93.4	25.34
Mayflower	1988	309.81	11.29	7.64	0.53	96.4	11.32
Transit Co	1987	300.03	17.34	12.32	0.50	94.2	23.71
National	1988	23.51	0.19	0.42	0.04	99.2	53.55
Van Lines	1987	21.83	0.06	0.09	0.04	99.7	10.20
North American	1988	540.41	20.02	6.37	0.65	96.3	3.33
Van Lines[8]	1987	507.78	20.37	20.24	0.77	96.0	11.87
Pan American	1988	11.68	0.06	0.04	0.05	99.5	6.16
Van Lines[7]	1987	12.36	0.03	0.06	0.05	99.8	6.66
United	1988	425.62	0.90	0.16	0.68	99.8	0.47
Van Lines[7]	1987	400.95	(1.30)	(0.79)	0.70	100.3	-0-
Wheaton	1988	48.49	2.65	1.78	0.07	94.5	10.01
Van Lines	1987	44.61	2.51	1.12	0.07	94.4	9.60

[1]Net Carrier Operating Income – Difference between carrier operating revenues and carrier operating expenses.

[2]Net Income – After including fixed charges, non-operating income, income taxes, unusual or infrequent items, earnings attributable to discontinued segments, extraordinary items, and cumulative effect of changes in accounting principles.

[3]Revenue tons hauled reflects common and contract carrier service.

[4]Operating Ratio – Ratio of operating expenses to operating revenues.

[5]Return on Equity – Ratio of net income to shareholders' equity less tangible property at end of previous calendar year. The symbol -0- indicates a deficit in net income and/or shareholders' equity.

[6]North American Van Lines, Inc. conducts household goods and general freight operations, both of which are substantial in scope. In this report, the operating revenues, net carrier operating income, revenue tons hauled and operating ratio for North American reflect household goods operations only. Since the ICC's reporting requirements do not include an allocation of net income for carriers which provide dual service, the net income and return on equity for this carrier reflect both household goods and general freight operations. Consequently, this report shows composite data for all carriers excluding North American Van Lines so that a better comparison can be made of data from household goods operations.

[7]Operating revenues, net carrier operating income, and operating ratio for Mayflower Transit Co., American Red Ball Transit, Atlas Van Lines, Inc., Bekins Van Lines Co., Global Van Lines, Inc., and United Van Lines, Inc. as shown above, reflect household goods operations only, but revenue tons hauled, net income, and return on equity represent the results from all their operations, including the transportation of general freight and household goods as well as income from household goods services (packing, crating, storage, etc.). The general freight operations of these carriers are insubstantial in comparison to their much larger household goods operations.

Source: Interstate Commerce Commission

two times book value. As carrier stock prices fall closer to book value, we'll see quite a few LBOs," says Robertson.

Financial indicators derived from the carrier's balance sheets and income statements are primarily the concern of investors and analysts. These indicators can also tell the shipper a great deal about the carrier's policies on reinvestment in new equipment, its long-term ability to stay in business, and perhaps its negotiating strength. Robertson cautions shippers to use indicators as a source for more questions. "Do not take them as absolute information," he says.

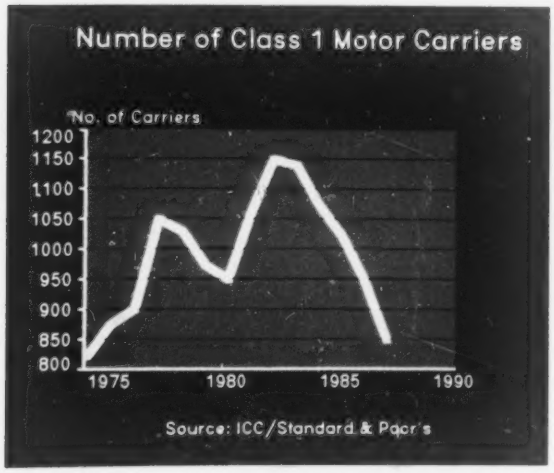
To determine if a carrier is investing enough in new equipment and terminals, watch the carrier's net property and equipment. It should be going up faster than inflation (see box at right).

The operating ratio continues to be the simplest indicator for shippers. The operating ratio shows pre-tax, pre-interest income and gives a quick picture of how well the carrier is running its business.

"A slightly more sophisticated indicator is cash flow, which includes depreciation and deferred taxes. This is probably the most important indicator of a carrier's health if watched over time. Downward movement means it's having trouble covering operating expenses," says Robertson.

Robertson also suggests looking at a carrier's claims and insurance costs. If either is going up or is higher than similar carriers, something is probably wrong with the way the company manages its business.

The most important message Robertson has for shippers is to be cautious of too good a price. "If a carrier is willing to take any negotiated price," says Robertson, "it means the carrier doesn't know its costs or its business. Very soon that carrier is going to be in trouble, and so will the shippers who use it." ■



Bankruptcies and mergers still thin the ranks of LTL and TL carriers with revenues over $5 million.

ARE YOUR CARRIERS REINVESTING? FINANCIAL INDICATORS TO WATCH

Healthy, service-oriented carriers keep their fleet, terminals and other equipment in tip-top shape. Marginal operators either cannot or will not make the investment in new plant and equipment. The financial indicators described below show the shipper which carriers are committed to providing competitive, quality service for the long haul. None of these financial indicators by itself, however, should be used to judge a carrier's reinvestment strategies. Carriers do not all operate in the same way. Some lease all their equipment, while others own theirs. Some own real estate associated with their businesses, while others do not. Some carriers are using more owner operators, while others continue to use only employee drivers. Thus, financial indicators for carrier reinvestment are not always comparable to industry averages or competitive carriers. Also, the most reliable numbers are those charted over a number of years. Special situations such as route expansions, buy-outs and financial restructurings are frequent in the motor carrier industry and can cause significant swings in year-to-year financial statistics. All these ratios are available from the carriers themselves. They should all be reported to the Interstate Commerce Commission, although not all carriers comply.

Depreciation expense: If this amount is rising, it indicates the carrier is investing in new equipment. If the rate is not increasing, the company could be living off old equipment. The rate of increase should be higher than the inflation rate.

Accumulated depreciation: This is another indicator for reinvestment. Ideally, the number should be around 50 percent of gross plant and equipment. If the figure reaches 70 percent or more, the carrier is not reinvesting.

Depreciation rate: Depreciation as a percent of revenue should run about five percent for general commodity carriers. For special commodity carriers using mainly owner operators, it can be as low as two percent. For tank truck and other capital-intensive carriers, the indicator should be seven or eight percent. Rates below these amounts indicate disinvestment or playing games with depreciation to make earnings look better.

Cash flow as a percent of net property and equipment: Cash flow is net income plus depreciation and deferred taxes. It is probably the best number for determining how well a carrier's operations are really doing. Cash flow will change, hopefully upward over time, but as a percent of net plant and equipment, the figure should remain fairly constant.

MODERN
DISTRIBUTION
THE TRANSPORTATION BUSINESS MAGAZINE SEPTEMBER 1989

Industry Report
Business

THE CORPORATE CROSSROADS

Logistics plays traffic cop

BEST AVAILABLE COPY

002529 010 008
Susan Garner
Consolidated Inf Service
4521 Post Moor Highway
Bonfield VA 20914

ing the tariff trap

Real partnershipping

Managing your railcar fleet

SEPTEMBER 1989

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 9

COVER STORY

28 CORPORATE CROSSROADS

Sales & Marketing, Production, Finance and other departments arrive at a crossroads, where important strategic decisions have to be made or plans implemented. Everyone shares the company's goals, but they're not sure how to proceed. Or maybe each has a different vision of how the goal is achieved. Logistics is in perfect position to direct traffic.

FEATURES

36 THE TARIFF TRAP

If shippers hope to avoid undercharge lawsuits, limited liability, and the increasing torrent of tariff rules, they must learn to use contracts for their transportation needs.

46 FOR BETTER OR WORSE

AST&L names Kendall Healthcare Products Company and Yellow Freight System the 1989 Shipper Carrier Partnership of the Year.

54 MANAGING SMALL SHIPMENTS IS BIG BUSINESS AT HALLMARK

The company ships more than 11 million greeting cards a day to 37,000 customers and makes it look easy. What's their secret?

60 CASEBOOK: RAIL SERVICES

66 SITE LOCATION INDEX

Where's the best place to locate a new plant or distribution center? This handy guide should get your search moving in the right direction.

72 LOGISTICS TOOLS: HOW TO AVOID THE TARIFF TRAP

84 WAREHOUSING: A REVIEW FOR MANAGEMENT

Warehousing trends . . . An on-line distribution management system.

DEPARTMENTS

4 EDITORIAL

13 LOGISTICS TRENDS

16 TRANSPORTATION REPORT

24 GLOBAL LOGISTICS REPORT

77 DISTRIBUTION'S INFO HUB

79 EQUIPMENT & TECHNOLOGY

81 LITERATURE

104 MANAGEMENT

Next Month:
A Global Logistics How-to

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

E.J. MULLER – Senior Editor (West Coast)
(415) 769-0884

THERESA M. STELTZER – Senior Editor
(215) 964-4381

SHARON STRUCKUS – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
STANLEY HOFFMAN (203) 790-4195
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 307-8808
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett Packard

STANLEY ROZYCKI
VP Transportation/Logistics
Federated Department Stores, Inc.

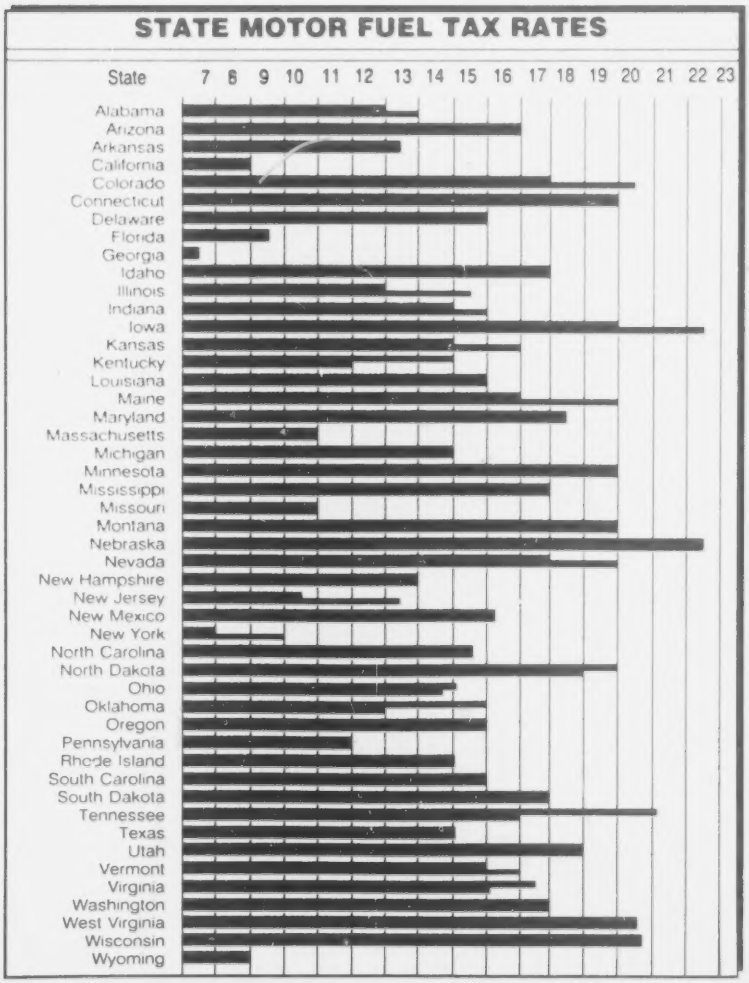
GARY M. THOMPSON
Director of Physical Distribution
Kraft Inc., Dairy Group

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1989. Subscription rate: U.S. and possessions, $55 per year. Canadian, $60. Foreign $80. Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in-Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

BEST COPY AVAILABLE

DISTRIBUTION's 1989 SITE LOCATION INDEX

Where's the best place to locate a new plant or distribution center? This handy guide should get your search moving in the right direction.



The information presented in this feature was gleaned from a number of sources. Because it was impossible to convey, in these charts, the full extent of the details provided by these documents, it is recommended that the reader consult these primary sources where appropriate.

One of the most useful tools for evaluating the states is the "General Manufacturing Climates" study. Conducted annually by Grant Thornton, an accounting and management consulting firm, it rates the states according to 22 economic factors. Contact Grant Thornton, Suite 1700, One Prudential Plaza, Chicago, Ill. 60601.

Data on motor fuel taxation is available from the Highway Users Federation, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036-1993.

Information on highway regulations, taxes, and reciprocity agreements is also available from the National Private Truck Council, Suite 720, 1320 Braddock Place, Alexandria, Va. 22314.

FUEL TAX RATES represents the taxes imposed on motor fuels in cents per gallon. The bars are doubled, the upper segment indicating the tax on gasoline, the lower segment the tax on diesel fuel. In many cases the two fuels are taxed at the same rate. In addition to the basic rates, many states also impose additional mileage taxes, surcharges, etc. As of July, 14 states had raised one or both of their motor fuel tax rates. Increases were pending in 13 other states. The current national average state tax for diesel fuel is 15.41 cents; Federal tax is an additional 15 cents. Source: Highway Users Federation.

MOTOR VEHICLE SIZE, WEIGHT AND ACCESS RESTRICTIONS

	height			width		length											weight			access						
						straight truck					tractor/ trailer															
	13'6"	14'	14'6"	96"	102"	35'	40'	45'	60'	see notes	60'	65'	70'	see notes	not specified		73,000 - 79,999 lbs	80,000 lbs	over 80,000	see notes	.5 miles	1 mile	3 miles	5 miles	10 miles	unlimited	see notes
Alabama	●			●			●				●				●			●				●				●	
Arizona	●			●			●											●								●	
Arkansas	●				●		●				●															●	
California		●			●		●					●						●			●						●
Colorado	●				●		●						●					●									
Connecticut	●				●				●						●			●			●					●	
Delaware	●			●			●				●							●									a
Florida	●			●		●									●			●									b
Georgia	●			●					●		●						●										c
Idaho		●			●		●								●			●									
Illinois	●			●						A				E			●				●						
Indiana	●				●					B					●			●								●	
Iowa	●			●			●				●							●						●			
Kansas		●			●					C					●			●								●	
Kentucky	●			●				●						E				●									
Louisiana	●			●			●				●							●									
Maine	●				●			●			●							●									d
Maryland	●			●			●								●	●											e
Massachusetts	●			●			●				●							●									f
Michigan	●			●			●							F		●											
Minnesota	●				●		●					●						●								●	
Mississippi	●				●		●								●			●									
Missouri	●			●			●							G				●									
Montana		●			●		●								●			●									
Nebraska			●		●		●					●							●							●	
Nevada		●			●		●						●							J							
New Hampshire	●				●		●								●			●									g
New Jersey	●			●		●									●			●									g
New Mexico	●				●		●					●						●									h
New York	●			●		●					●							●									i
North Carolina	●			●		●					●							●									
North Dakota	●				●					D				H					●								
Ohio	●				●		●								●			●								●	
Oklahoma	●				●			●						G					●								j
Oregon		●			●		●				●							●			●						
Pennsylvania	●			●			●				●							●									k
Rhode Island	●				●		●								●			●									l
South Carolina	●			●		●					●							●								●	
South Dakota	●				●			●							●					K							m
Tennessee	●				●		●								●			●									j
Texas	●				●			●							●			●								●	
Utah		●			●			●						I				●									
Vermont	●				●				●			●						●									n
Virginia	●			●			●				●							●									o
Washington		●			●		●								●			●									
West Virginia	●			●			●				●									L							p
Wisconsin	●				●		●				●							●									
Wyoming		●			●				●		●									M							

MOTOR VEHICLE RESTRICTIONS outlines the size and width limitations observed by the various states. The limits described are those imposed on vehicles travelling on state and non-designated highways. Limits governing vehicles travelling on the interstate system are governed by the provisions of the Surface Transportation Assistance Act. Also included in the chart are the restrictions limiting access to the designated interstate highway system. The limitations listed under the "length" heading are those for a 2-axle straight truck, and for 3-axle tractor, 2-axle trailer combinations. The vehicle weight limits are for 3-axle tractor, 2-axle trailer combinations. Exceptions or additional restrictions may be applied in some cases.

Notes, vehicle sizes and weights:

A – maximum length = 42 ft.
B – maximum length = 36 ft.
C – maximum length = 42 ft., 5 in.
D – maximum length = 50 ft.
E – maximum 55 ft. wheelbase
F – maximum 59 ft. wheelbase
G – maximum 53 ft. wheelbase
H – maximum 75 ft. wheelbase
I – maximum 48 ft. wheelbase
J – maximum GVW 72,500 lb.
K – As per Bridge Formula and tire size
L – Max. weight on non-designated highways is 65,000 lb., may be increased to 80,000 lb. by state order.
M – GVW is controlled by the Bridge Formula

Notes, interstate system access provisions:

a – By specific route permit only.
b – Rural-1 mi. (2 lane) and 3 mi. (4 lane); urban-1 mi. on rds with 12-ft. lanes.
c – From identified interchanges; 60-ft. limit.
d – 2 mi. in rural areas; 1/2 mi., urban areas.
e – Shortest practical route to terminals.
f – Specific permit required.
g – By permit only for twins.
h – 20 mi. from Interstates, designated roads.
i – 1500 ft. on all state highways intersecting a designated highway. Additional access by permit.
j – Shortest reasonable route.
k – .2 mi. from designated system.
l – Doubles restricted to 1 urban mi.; 1 mi. on 2-lane roads and 3 mi. on 4-lane roads in rural areas; other by permit only.
m – Access limited to loading docks, terminals, maintenance facilities.
n – Unpermitted twins: .5 mi. for access to food, fuel, lodging, terminals.
o – Permit required beyond .5 mi.
p – Within 2 mi. of designated routes.

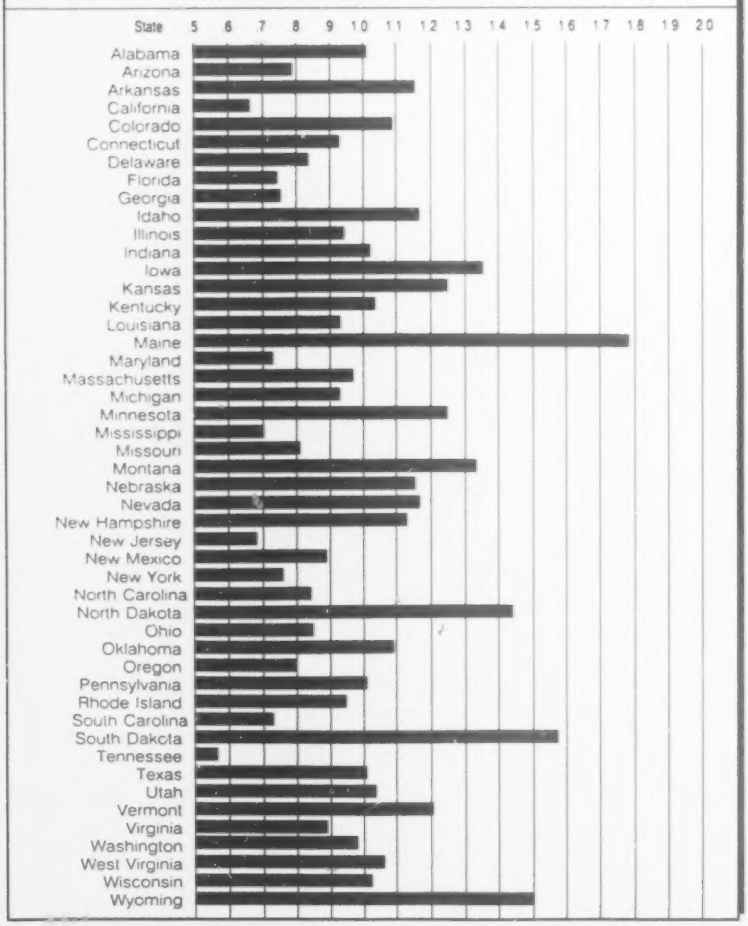
RECIPROCITY AGREEMENT PARTICIPATION

State	IRP	UPA	MRA	IFTA	RFTA	State	IRP	UPA	MRA	IFTA	RFTA
Alabama	yes	no	yes	no	no	Nebraska	yes	yes	no	no	no
Arizona	yes	yes	yes	yes	no	Nevada	no	yes	no	no	no
Arkansas	yes	no	no	no	no	New Hampshire	yes	no	no	no	yes
California	yes	yes	no	no	no	New Jersey	no	no	yes	no	no
Colorado	yes	yes	yes	yes	no	New Mexico	no	yes	no	no	no
Connecticut	yes	no	no	no	no	New York	yes	no	no	no	no
Delaware	yes	no	no	no	no	North Carolina	yes	no	yes	no	no
Florida	yes	no	yes	no	no	North Dakota	yes	yes	yes	no	no
Georgia	no	no	yes	no	no	Ohio	no	no	no	no	no
Idaho	yes	yes	no	yes	no	Oklahoma	yes	no	no	yes	no
Illinois	yes	yes	yes	no	no	Oregon	yes	yes	no	no	no
Indiana	yes	no	yes	no	no	Pennsylvania	yes	no	no	no	no
Iowa	yes	yes	no	yes	no	Rhode Island	no	no	no	no	no
Kansas	yes	yes	yes	no	no	South Carolina	yes	yes	yes	no	no
Kentucky	yes	no	yes	no	no	South Dakota	yes	yes	no	yes	no
Louisiana	yes	no	yes	no	no	Tennessee	yes	no	yes	no	no
Maine	no	no	no	no	yes	Texas	yes	no	no	no	no
Maryland	yes	no	yes	no	no	Utah	yes	yes	no	no	no
Massachusetts	no	no	no	no	no	Vermont	yes	no	no	no	yes
Michigan	yes	no	yes	no	no	Virginia	yes	no	yes	no	no
Minnesota	yes	yes	no	yes	no	Washington	yes	yes	no	yes	no
Mississippi	yes	no	yes	no	no	West Virginia	yes	no	no	no	no
Missouri	yes	yes	yes	no	no	Wisconsin	yes	no	no	yes	no
Montana	yes	yes	yes	no	no	Wyoming	yes	yes	no	yes	no

RECIPROCITY AGREEMENT PARTICIPATION is a checklist of the major truck registration agreements:

- Multistate Reciprocal Agreement – a registration plate issued in the home state is honored by all participants. Fuel taxes are paid to each state on a per-mile basis;
- International Registration Plan – based on a single apportioned registration plate and a card carried inside the vehicle that lists other states it can operate in. Registration fees based on historical or forecast mileages;
- Uniform Proration Agreement – a home state license contains spaces for decals purchased from other states. Registration fees are based on actual mileages;
- International Fuel Tax Agreement & Regional Fuel Tax Agreement – base state issues license, decal, receives all fees and reports, and distributes payments to appropriate jurisdictions.

TRANSPORTATION NETWORK



TRANSPORTATION NETWORK is an index of each state's quality of transportation. The index is an overall rating based on such factors as the state's transportation budget, condition of roadways, per capita transportation expenditures, average daily traffic volumes, and a number of other commuter-related factors. A rating of 1.000 is defined as the national average. The higher the rating, the better the state's transportation network. Only three regions of the country scored higher than the national average – New England, the North Central and South Central regions. The North Central region alone accounted for seven of the top ten ratings. Pennsylvania, which in a 1987 survey of interstate truckers was named the state least convenient to drive in, again ranked above the national average in this study. The South Eastern region replaced the Mid East as the nation's worst, however. Tennessee received the worst score in the country, and only two states in the region topped a score of 1.000. Data are for the year 1988. Source: General Manufacturing Climates, Grant Thornton.

LABOR ENVIRONMENTS – AVERAGE WAGES

State	Avg Wage/hr	% Change	State	Avg Wage/hr	% Change
Alabama	$ 9.01	18.55	Nebraska	$ 9.49	7.84
Arizona	9.89	9.89	Nevada	10.08	12.00
Arkansas	8.07	15.29	New Hampshire	9.73	31.49
California	10.99	10.68	New Jersey	10.88	19.56
Colorado	10.26	14.00	New Mexico	8.78	15.53
Connecticut	10.77	22.39	New York	10.43	18.52
Delaware	10.48	13.91	North Carolina	8.13	21.34
Florida	8.40	15.07	North Dakota	8.37	8.70
Georgia	8.68	20.25	Ohio	12.00	13.21
Idaho	9.93	10.33	Oklahoma	10.35	12.50
Illinois	11.03	13.71	Oregon	10.64	3.30
Indiana	11.38	12.67	Pennsylvania	10.27	15.39
Iowa	10.64	5.35	Rhode Island	8.55	23.91
Kansas	10.19	10.76	South Carolina	8.30	18.57
Kentucky	10.15	15.34	South Dakota	8.03	10.00
Louisiana	10.91	11.33	Tennessee	8.96	19.47
Maine	9.31	22.50	Texas	9.97	12.02
Maryland	10.47	16.33	Utah	9.93	14.14
Massachusetts	10.46	28.25	Vermont	9.45	22.73
Michigan	13.43	15.78	Virginia	9.35	19.87
Minnesota	10.56	10.00	Washington	11.83	3.77
Mississippi	7.83	16.87	West Virginia	10.72	10.52
Missouri	10.17	14.27	Wisconsin	10.64	8.57
Montana	10.63	2.21	Wyoming	9.88	13.56

AVERAGE WAGES represents the average hourly wage paid to manufacturing workers. The column labeled "% change" indicates the trend in the average manufacturing wage over the last five years. As in the past few years, the lowest average wage is paid in Mississippi, and the highest in Michigan. The increase in wages over this five-year period has averaged about 14 percent. New Hampshire, however, again leads the nation with increases amounting to over 31 percent. The most favorable wage climate again is in the Southeast. This year, pay in New England – which has the second most favorable average wage – is rising the fastest, at a healthy 25.21 percent. Wages in the West and North Central regions are rising slowest. Source: General Manufacturing Climates, Grant Thornton.

An invoice shouldn't leave you in the dark.

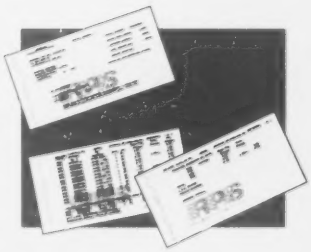
A Roadway Services Company

LABOR ENVIRONMENTS – UNIONIZATION

State	Union Workforce	% Change	State	Union Workforce	% Change
Alabama	15 33%	-1 97	Nebraska	9 86%	-1 00
Arizona	3 81	-0 63	Nevada	6 20	-0 59
Arkansas	12 00	-0 59	New Hampshire	6 75	-0 53
California	22 62	-0 87	New Jersey	24 78	-0 28
Colorado	9 96	-0 37	New Mexico	10 40	-2 06
Connecticut	15 60	-0 54	New York	48 21	-0 90
Delaware	20 52	0 41	North Carolina	4 60	-0 15
Florida	8 92	0 12	North Dakota	10 12	-1 43
Georgia	11 95	-0 91	Ohio	40 86	-0 32
Idaho	8 58	-1 97	Oklahoma	17 12	-0 15
Illinois	33 27	-3 17	Oregon	21 38	-1 43
Indiana	37 58	-1 04	Pennsylvania	40 72	-0 01
Iowa	20 78	-4 17	Rhode Island	11 09	0 17
Kansas	11 42	-0 58	South Carolina	3 12	-0 31
Kentucky	23 05	-1 66	South Dakota	2 66	-0 46
Louisiana	20 43	0 10	Tennessee	13 46	-0 96
Maine	18 72	-1 17	Texas	15 06	-0 35
Maryland	30 02	-1 01	Utah	5 05	-0 91
Massachusetts	19 91	0 31	Vermont	8 28	-1 22
Michigan	53 57	1 21	Virginia	12 19	0 28
Minnesota	18 07	-3 19	Washington	28 15	-2 69
Mississippi	8 13	-0 23	West Virginia	29 78	-3 48
Missouri	32 38	-3 72	Wisconsin	24 30	-2 83
Montana	25 12	0 10	Wyoming	15 85	-1 72

UNIONIZATION indicates the degree to which the available workforce is unionized. This factor has a potential effect on the future cost of labor and on labor relations. The second column indicates the change in unionization, as a percentage, over five years. The figures show that the decline in union membership characteristic of the past several years is continuing, although at a far slower pace. In the 1988 study, several states recorded decreases in unionized workers of between 20 and 50 percent over five years. This year the largest decrease is less than 5 percent, and the 50-state average is just over 1 percent. In only eight states did union membership grow during 1988. In each case, the increase was modest. Source: General Manufacturing Climates, Grant Thornton.

How to account for shipping costs: The RPS Itemized Bill



The day George Davis had been anticipating finally arrived. It was the end of the fiscal year and several areas of the company, along with George's distribution department, were the subjects of upcoming financial audits.

But George wasn't worried. Early last spring he had begun using RPS. Thanks to their itemized billing procedure, George knew exactly when and where each distribution dollar had been spent. By shipping with RPS and using their barcode, George's company had a unique and thorough history on every package shipped ... including pick-up point, delivery point, weight, and additional charges associated with each package.

Every shipping detail, down to the last red cent, was present and accounted for. And as for George Davis' audit... well, that goes without saying.

For more information about how RPS can help you manage your costs, call 1-800-ROADPAK.
(762-3725)

From coast to coast, we mean business.

RPS℠
ROADWAY PACKAGE SYSTEM

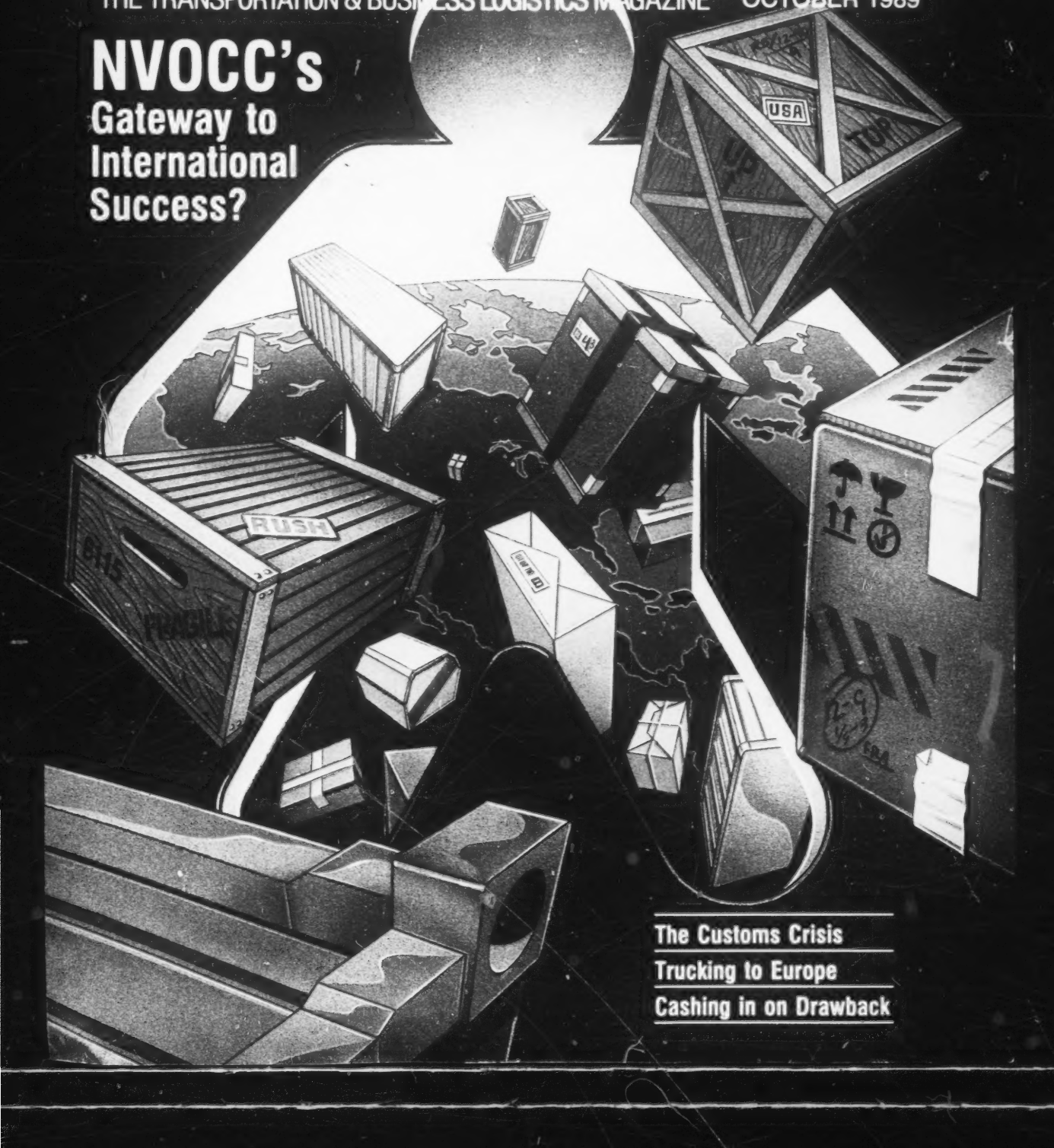
Write In 139 on Reader Service Card

CHILTON'S

DISTRIBUTION

THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE OCTOBER 1989

NVOCC's Gateway to International Success?



The Customs Crisis

Trucking to Europe

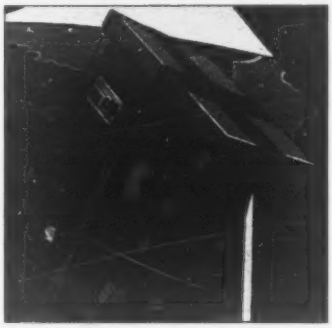
Cashing in on Drawback

OCTOBER 1989

CHILTON'S
DISTRIBUTION
THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 10

COVER STORY



30 THE NVOCC GLOBAL NICHE

Non-vessel operating common carriers are often perceived as maritime middlemen. When the Shipping Act of 1984 deregulated much of ocean commerce, NVOCCs became even more prevalent. Most say non-vessel operators have either filled a vital niche in global commerce or filled their own coffers by preying on less sophisticated, lower-volume shippers.

FEATURES

40 LIFE WITH U.S. CUSTOMS: MAKING THE BEST OF IT

Here's how you can make the Customs burden a little lighter.

48 WAREHOUSES ON WINGS

How companies manage logistics in the rapidly changing airfreight business.

58 LOGISTICS BROADENS ITS HORIZONS

DISTRIBUTION reveals its international survey results.

66 CASEBOOK: INTERNATIONAL SHIPMENT STRATEGIES

72 THE PATH OF LEAST RESISTANCE

PIE's less-than-containerload service makes global customers happy.

78 CONTAINER COMEBACK CARVES NEW NICHES

The maritime container industry is riding the crest of a three-year return to increased profitability.

88 LOGISTICS TOOLS: DUTY DRAWBACK AS A CASH OPPORTUNITY

92 SOFTWARE REVIEW: RAILROAD EDI MADE EASIER

DEPARTMENTS

4 EDITORIAL

13 LOGISTICS TRENDS

18 TRANSPORTATION REPORT

28 GLOBAL LOGISTICS REPORT

95 DISTRIBUTION ADVISOR

99 LITERATURE

101 DISTRIBUTION'S INFO HUB

102 EQUIPMENT & TECHNOLOGY

112 MANAGEMENT

M1-M16 MAILIT

Next Month:
NITL Man of the Year

EDITORIAL STAFF

THOMAS A. FOSTER, ESQ. – Editorial Director
(215) 964-4379

JAY GORDON – Managing Editor
(215) 964-4385

E.J. MULLER – Senior Editor (West Coast)
(415) 769-0884

THERESA M. STELTZER – Senior Editor
(215) 964-4381

SHARON STRUCKUS – Associate Editor
(215) 964-4387

EMILY BARR – Production Manager
(215) 964-4384

CONTRIBUTING EDITORS

JOSEPH V. BARKS (215) 964-4385
JOHN BETZ (303) 422-4959
ROBERT J. BOWMAN (415) 752-4884
KURT HOFFMAN (301) 762-8250
STANLEY HOFFMAN (203) 790-4195
S. JAMES SEEDS (312) 559-2990
ROBERT VIDRICK (804) 740-3933
WALLY WEART (312) 307-8808
SY ZIVAN (716) 423-3643

FOREIGN CORRESPONDENTS

LYNN HURLBERT – Latin America
ANDREW TAUSZ – Canada
HANS VAN DER HOOP – Europe

EDITORIAL ADVISORY BOARD

DR. JOSEPH L. CAVINATO
Associate Professor of Business Logistics
The Pennsylvania State University

DR. RICHARD LANCIONI
Professor of Marketing
Temple University

CHARLES E. MARR
Corporate Traffic Manager
Hewlett Packard

STANLEY ROZYCKI
VP Transportation/Logistics
Federated Department Stores, Inc.

GARY M. THOMPSON
Director of Physical Distribution
Kraft Inc., Dairy Group

DISTRIBUTION, ISSN 0273-6721, owned by Chilton Co., is published monthly at Chilton Way, Radnor, PA 19089, (215) 964-4000. Chilton Co., part of Capital Cities/ABC, Inc., New York, N.Y. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. © CHILTON COMPANY 1989. Subscription rate: U.S. and possessions, $55 per year. Canadian, $70. Foreign $80. Single issue $4.00 except Distribution Guide Issue – $40 per copy. Address editorial correspondence to Editor-in-Chief, DISTRIBUTION, Chilton Co., Radnor, PA 19089. Postmaster: Send form 3579 to DISTRIBUTION, One Chilton Way, Radnor, PA 19089. Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress Street, Salem, MA 01970. (0273-6721/87 $1.00 + 25¢.)

LOGISTICS BROADENS ITS HORIZONS

A survey of readers' international activities shows that many logisticians already have what it takes to be successful in the 1990s and beyond—and that many more are eager to join them.

By Joseph V. Barks, Contributing Editor

Earlier this year, when a *Wall Street Journal* article profiled the CEO of the year 2000, "getting global" was right at the top of the list of requirements. The experts quoted in the article weren't talking about taking a few just-for-show trips on the Concorde. It was stressed that real hands-on, everyday experience with foreign operations will attract the executive recruiters of tomorrow (and in some cases, today).

With this in mind, there are some logisticians out there who are well on their way to executive row. Marguerite P. Fleming, traffic manager for Laitram Machinery Inc., says: "Understanding the transportation information, negotiating with freight forwarders and having a better understanding of the LTL carriers and their positions when quoting a shipping rate," are most important to her.

Through responses to a recent DISTRIBUTION survey about international activities, a number of readers indicated that they are already getting extensive opportunities to be at the forefront of their companies' forays into worldwide competition. These managers are committed enough to the international side of their duties that, when asked to list the skills they most needed to develop, fluency in other languages was often routinely mentioned.

Another key attribute of the "global renaissance executive," according to the article, will be an ability to utilize

continued

DISTRIBUTION'S CONTRIBUTION TO INTERNATIONAL ACTIVITIES

General Business

Coordination w/ mktg., sales for export customer service	54.5%
Review of quotes or POs for major transactions	50.7
Regular contact w/ foreign customer or vendors	44.0
Profit enhancement w/ customs-saving devices (FTZs, drawback) or tax-saving devices (FSCs)	38.0
Planning distribution systems in foreign countries	34.3
Coordination w/ mfg. on outsourced components	33.6

DISTRIBUTION'S CONTRIBUTION TO INTERNATIONAL ACTIVITIES

Technical

Transportation documentation	67.9%
Transportation arrangements	65.7
U.S. export documents and procedures	64.9
Preparation or review of L/C, other bank documents	57.5
Complete door-to-door transportation	56.7
U.S. Customs procedures	50.0
Processing of foreign orders	48.5
Cargo insurance	47.0
Foreign customs procedures	35.8
Foreign warehousing and distribution	25.4

International distribution may seem more glamorous and complicated, but the list of major duties now handled by global logisticians reminds us that the job still boils down to basics. If anything, the emphasis on paperwork and procedures magnifies the mundane aspects of the work. The low involvement with warehousing is probably a reflection of added dependence on forwarders and foreign carriers, many of which operate their own public warehouses as part of the total distribution services that they offer.

worldwide information networks. Here too, some of the distribution managers surveyed seem to be on the right path. Many mentioned the need to do more with computers and EDI systems so that information about all vital aspects of an international transaction can be accessed on an immediate basis. W.J. Gaffney, supervisor of transportation specialists, General Tire Co., Inc., says these items top his list: "Electronic data interchange of documents, ocean rate negotiating, port selection, inbound clearance and expediting."

More in Basic Training

However, while a significant portion of the survey responses showed that many readers and their organizations are perched on the cutting edge of the international trend, an even larger percentage expressed a need to grasp basic international distribution skills before moving on to more sophisticated areas. As reflected in both the overall findings to the survey questions (see tables throughout this article), and in the sampling of individual comments (see box, p. 63), most international distribution managers are still largely confined to nuts-and-bolts duties like packaging, transportation, customs clearance and storage, and are less likely to be involved from a strategic standpoint. The usual comments about the need to develop basic skills in international transportation, regulations, customs procedures, and so forth, continue to be interspersed with laments such as this one from an anonymous, and obviously frustrated, global logistician: "I still need to know how to talk to vice presidents about the proper place of international logistics in the modern corporate environment."

In short, international involvement and exposure within the distribution field now seems to run the gamut. The good news, though, is that the gamut is expanding to take in more organizations and more distribution professionals as requirements for global activity continue to grow. A key to all this, however, will be a "better understanding of regulations. And knowing where and how to find information concerning exporting and importing problems," says John M. Thompson, distribution manager, regulatory affairs, Airco Special Gases. ■

INTERNATIONAL SUBJECTS OF INTEREST

Laws and regulations governing exports/imports	69.4%
Sources of general information	56.0
Intl. documentation procedures	53.0
Customs procedures	50.0
L/C, banking and financing intl. transactions	48.5
How to use forwarders, customs brokers, etc.	47.0
Intl. transportation services	46.3
Questions and answers about international distribution	44.8
How distribution is done in specific foreign countries	44.0
Case histories	42.5
Insurance for exports/imports	35.8
Export packing, container stowage, protective packaging	34.3
FTZs	23.9

Not surprisingly, regulatory "do's and don'ts" dominate the list of international logisticians' informational needs. Surprisingly, the need for general information is still strong. While one would think that by now the basic messages have been well absorbed, there are apparently still many companies and distribution departments that are just getting started. Also notable on this list is the subject of least interest. Once a much-talked about concept, Foreign Trade Zones are now apparently passé as a trend in international logistics.

MOST SIGNIFICANT IMPACT ON INTL. DISTRIBUTION STRATEGIES

Borderless Europe (1992)	28.3%
U.S.-Canada Free Trade Agreement	27.6
Harmonized customs system	19.4
Japan's possible opening of markets	19.4
Trade Protection Act of 1988	13.4
Possible Adoption of U.N. hazmat standards	2.4
Value of the U.S. dollar	1.5
Other	2.9

Europe and 1992 has received the bulk of media attention, but the close second posted by the Canadian treaty reminds us of how significant U.S.-Canada trade remains to many American importers and exporters. The low perception of significance for the value of the dollar is, unfortunately, probably a reflection of the still-limited involvement of logisticians in strategic, market- and finance-related decisions. By the time an international transaction reaches many logistics departments, it's usually been determined if the current financial climate is favorable enough to proceed, and distribution costs are expected to meet profit expectations that have been established elsewhere. Unfortunately, many logistics managers who are put in this situation find out the hard way just how important exchange rates can be.

International Survey Results

INTERNATIONAL AREAS OF INTEREST

U.K. and Western Europe	56.0%
Canada	37.3
Japan	29.1
Central and South America	28.3
Other Asian Countries/Pacific Rim	27.6
Australia/New Zealand	25.4
China (PRC)	25.4
Mexico	20.9
Eastern Europe/USSR	17.9
Middle East	13.4
Caribbean	11.2
Africa	10.4

Results here make it clear that 1992 and the EuroTunnel have now captured the interest of most international shippers. No doubt, if this poll was taken again this year, the rating for China would be significantly altered as a reflection of internal developments in this area. Interest from companies that had already established a presence in China before its upheaval is certainly far more acute; interest from companies that had yet to join the Chinese trend has now probably waned.

WHAT INTERNATIONAL LOGISTICIANS STILL NEED TO KNOW

"Each country's distribution systems."—**Peter Strugaty, Executive Vice President, Austin Productions, Inc. Holbrook, NY**

"Carrier-forwarder-shipper EDI network. Sources of reliable rate information and shipping schedules, including ETAs (other than Journal of Commerce)."—**John C. Kouser, Manager, Distribution Services, Durkee Industrial Foods Corp., Cleveland, OH**

"More precise interpretation of ocean tariff rates. Improve our ability to get correct rates from ocean carriers."—**Richard S. Derian, Director of Transportation, Murray Chris Craft, Bradenton, FL**

"International finance."—**Michael G. Goode, Rail Group Manager, Parsons Brinckerhoff, Herndon, VA**

"Developing better computer skills; learning foreign languages to have fluency (both verbal and written)."—**Edward J. Zell, Manager, Transportation & Shipping, Solar Turbines Inc., San Diego, CA**

"Financing incentives of all countries (e.g. S/A = FINEX). Economic issues, export/import changes, political stability of all countries."—**Donald L. Grant, Project Control Supervisor, Ford Motor Co., Louisville, KY**

"Letters of credit, dock receipts, export boxing, choice of best forwarders for areas of foreign trade."—**Daniel G. Grow, Traffic & Material Handling Coordinator, Goulds Pumps, Inc., Ashland, PA**

"Licensing and EDI."—**Gene Seigal, Senior Traffic Administrator, Cubic Corp., San Diego, CA**

"Foreign customs laws, charges, etc."—**Paul Puttkammer, Manager, Traffic Operations, Storage Technology Corp., Louisville, CO**

"PC programs that record, track and trace export/import shipments."—**Michael Kusuplos, Export/Import Control Analyst, Carrier Corp., Syracuse, NY**

"Cost justification of offshore sourcing, net value to sales of export orders (the cost to process eats up profits), software and technology sales."—**Alex Kentfield, Senior Associate, The Austin Co., Carol Stream, IL**

"Evaluation of competitive quotations (forwarders, steamship lines, air express)."—**Don Yaxley, Supervisor, International Distribution Operations, Itek Graphic Corp., Rochester, NY**

"Coping with U.S. government's and banks' indifference to exports for firms under U.S. $10 million in sales."—**John J. Cuadrado, President, Belco Resources Inc., Eastchester, NY**

"Knowing best vendors—courier services; programs that will expedite shipments through customs."—**William C. Miller, Supervisor, Shipping and Receiving, Peed Corp., Lincoln, NE**

"Finance/economics. Political considerations. Long-range planning/partnerships."—**Virginia Hopkirk, Director, International Transportation, Nike, Inc., Beaverton, OR**

"Hazardous materials—new regulations."—**Joan Hurley, Export Manager, Perry Austen Intl., Des Moines, IA**

"Procedures. Best possible way to ship product meeting FDA standards."—**Dennis L. Hilligoss, Shipping/Mailroom Manager, Core-Vent Corp., Sepulveda, CA**

"Customs procedures and preparation handling. International air and ocean transportation negotiating."—**Thomas Rein, Inventory Analyst, Mettler Instrument Corp., Hightstown, NJ**

"Intermodal coordination (end-to-end). Understanding foreign exchange and how to apply it."—**Janet Wolf, Documentation Specialist, Engelhard Corp., Parma, OH**